

# **National Institutes of Health (NIH) Career Development and Mentoring Programs**

**Collected by the Office of Research of Women's Health  
for the NIH Working Group on Women in Biomedical Careers**

**Reported by members of the NIH  
Coordinating Committee on Research on Women's Health**

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## **Trans-NIH Programs**

### ***NIH Intramural Research Program Opportunities***

#### **Summer Internship Program in Biomedical Research**

The Summer Internship Program (SIP) at the NIH provides an opportunity to spend the summer working side-by-side with some of the leading scientists in the world in an environment devoted exclusively to biomedical research. The program is open to high school students that are at least sixteen years old, and undergraduate and graduate students at an accredited U.S. college or university. Students who have been accepted into a college or university may also apply. For more information, see <http://www.training.nih.gov/student/sip/>.

#### **Postbaccalaureate Intramural Research Training Award (IRTA)**

The Postbaccalaureate IRTA program and the National Cancer Institute's CRTA program provide opportunities for recent college graduates to spend a year engaged in biomedical research at the NIH. U.S. citizens or permanent residents who have received a bachelor's degree from an accredited U.S. college or university and who have held the degree for less than two years are eligible to apply. For more information, see <http://www.training.nih.gov/student/Pre-IRTA/previewpostbac.asp>.

#### **Technical Intramural Research Training Award (IRTA)**

The Technical IRTA program aims to produce highly trained research support personnel. To be eligible to apply for this program, candidates must be U.S. citizens or permanent residents and must have graduated from an accredited U.S. college or university with a bachelor's or master's degree. The initial fellowship award is for two years; it can be extended for one additional year depending on satisfactory trainee performance and continued availability of funds. For additional information on the Technical IRTA program, see <http://www.training.nih.gov/student/Pre-IRTA/previewtechnical.asp>.

#### **NIH Academy Fellowship Program for Health Disparities Research**

The NIH Academy is a postbaccalaureate program that provides opportunities for recent college graduates to spend a year engaged in biomedical investigation at the NIH. The mission of the Academy is to enhance research dedicated to the elimination of domestic health disparities through the development of a diverse cadre of biomedical researchers. Health disparities are differences in the incidence, prevalence, mortality, and burden of disease and other adverse health conditions that exist among specific population groups in the United States. For more information, see <http://www.training.nih.gov/onlineApps/afpi/application/MainAcademy.asp>.



## **Summer Research Fellowship Program**

The Summer Research Fellowship Program (SRFP) at the NIH provides an opportunity to medical and dental students to spend the summer working side-by-side with some of the leading scientists in the world in an environment devoted exclusively to biomedical research. Students who have completed at least one year and are currently enrolled in an accredited medical/dental college or university in the United States are eligible to apply. For more information on the SRFP, see <http://www.training.nih.gov/student/srfp/>.

## **Clinical Research Training Program**

The Clinical Research Training Program is an individualized program developed for medical and dental students who have completed a year of clinical rotations. Fellows learn about translational research, that first step from the bench to the bedside and back to the bench; they attend lectures on clinical research; and they participate in an interactive, group learning experience with the members of the class and leading NIH physicians and scientists. Each fellow selects a mentor and plans an individualized research program combining clinical protocols and relevant laboratory studies. Students and mentors meet regularly to chart progress, plot investigational strategies, and discuss careers in biomedical research. Fellows can remain at NIH for a second year, depending on support of the sponsoring NIH institute, availability of funds, and permission from the student's home institution. For more information, see <http://www.training.nih.gov/crtp/>.

## **Clinical Electives Program (CEP)**

Through the Clinical Electives Program (CEP), the NIH offers a full complement of elective rotations for third- and fourth-year students in medical and dental schools in the United States as well as the international community at the Warren Grant Magnuson Clinical Center, a 250-bed hospital located on the NIH campus in Bethesda, Maryland. In addition, the CEP offers individualized tutorials for students who desire a total research experience. Participants experience a level of exposure to clinical research that is unduplicated elsewhere. The program also provides a meaningful introduction to clinical studies, which is of paramount importance to individuals who are contemplating careers in academic medicine. For more information, see <http://www.training.nih.gov/student/cep/>.

## **Resident Elective Program (REP)**

Through the Resident Elective Program (REP), the NIH offers elective rotations for residents at the NIH Clinical Center, a 240-bed hospital located on the NIH campus in Bethesda, Maryland. Patients who are admitted to the Clinical Center have the kind or stage of illness under investigation by NIH clinicians. Often these are the rarest and most interesting cases of a particular disease in the world. The most recent treatment strategies are evaluated at the NIH and new procedures are performed here as well. The rotations offer residents in-depth exposure to allergy and immunology, anatomic pathology, clinical flow cytometry, critical care medicine/internal medicine, hematopathology, infectious diseases, medical genetics, and transfusion medicine. Residents will have firsthand exposure to the design, conduct, and

management of clinical trials. For more information, see <http://www.training.nih.gov/clinical/residentelectives/opportunities.asp>.

### **Howard Hughes Medical Institute (HHMI)-NIH Research Scholars Program**

The HHMI-NIH Research Scholars Program, also known as the Cloister Program, was established in 1985 to give outstanding students at U.S. medical schools the opportunity to receive research training at the NIH. Medical and dental students spend nine months to a year on the NIH campus, conducting basic, translational or applied biomedical research under the direct mentorship of senior NIH research scientists. The Howard Hughes Medical Institute provides the administration and funding for the program, including the salaries and benefits for the Research Scholars. The NIH provides advisors, mentors, laboratory space, and equipment and supplies for laboratory work. For more information, see <http://www.hhmi.org/cloister/program.html>.

### **Year-Off Training Program for Graduate or Medical Students**

The Year-Off Training Program provides a research training opportunity at the NIH for students who are enrolled in graduate or medical degree programs and have permission from their institution to interrupt their current education, with the understanding that they will return to their degree granting institution within one year. For more information, see <http://www.training.nih.gov/student/Pre-IRTA/previewinterim.asp>.

### **Graduate Partnerships Program (GPP)**

The Graduate Partnerships Program (GPP) links the NIH in the graduate level training of students. The mission of the GPP is to establish and foster graduate education partnerships with national and international universities and institutions dedicated to quality education in biomedical basic and clinical research while providing the infrastructure and community support needed by the students in these programs. For more information, see <http://gpp.nih.gov/>.

### **Postdoctoral Intramural Research Training Award (IRTA)**

Postdoctoral IRTA and the National Cancer Institute CRTA Fellowships provide the opportunity for recent doctoral degree recipients to enhance their research skills in the resource-rich NIH environment. Trainees pursue both basic and clinical research free from the demands of obtaining grants and teaching, although opportunities to do both are available. To be eligible to apply for this program, candidates must hold a doctoral degree and have no more than five years of relevant research experience since receipt of their most recent doctoral degree. For more information, see <http://www.training.nih.gov/postdoctoral/irta.asp>.

### **Postdoctoral Visiting Fellowships**

The Postdoctoral Visiting Fellowship Program provides the same opportunities as the Postdoctoral IRTA and CRTA for citizens of all non-U.S. countries. For more information, see <http://www.training.nih.gov/postdoctoral/vf.asp>.

## **National Research Council (NRC) Research Associateship Program**

The National Research Council (NRC) Research Associateship Program includes both Postdoctoral and Senior Research Awards that are administered by the National Academies. NRC Research Associateships at the NIH provide postdoctoral scientists and engineers of unusual promise the opportunity to conduct research on problems largely of their own choice that are compatible with the interests of sponsoring laboratories, which are located throughout the resource-rich NIH, an environment devoted exclusively to biomedical research. Candidates for Postdoctoral Associateships must have less than five years of relevant research experience since receipt of their doctoral degree, while candidates for the Senior Associateships will have more than five years of relevant experience since receipt of their doctoral degree. The competition is open to both U.S. citizens and non-U.S. citizens. For more information, see <http://www.training.nih.gov/postdoctoral/nrc.asp>.

## ***Joint Postdoctoral Program for the National Institutes of Health (NIH) and the National Institute of Standards and Technology (NIST)***

The NIH/NIST Joint Postdoctoral Program is focused on cultivating a scientific work force competent in both the biological and the physical sciences. Research opportunities emphasize interdisciplinary research at the interface of the biological and physical sciences including, but not limited to, structural and computational biology, medical and bioinformatics, genomics and proteomics, tissue engineering, single molecule detection, nanotechnology, and imaging techniques. Each Postdoctoral Associate has two Advisers, one at the NIH and one at NIST, and the Associate is expected to spend time at both the NIH and the NIST laboratories during the course of the two-year award. For more information, see <http://www.training.nih.gov/postdoctoral/nist.asp>.

**Summary Table of Support for Trans-NIH Extramural Funding Mechanisms  
(Descriptions below)**

	NCI	NEI	NHGRI	NHLBI	NIA	NIAAA	NIAID	NIAMS	NIBIB	NICHD	NIDA	NIDCD	NIDCR	NIDDK	NIEHS	NIGMS	NIMH	NINDS	NINR	NLM	FIC	NCCAM	NCMHD	NCRR	OAR	OBSSR	ODS (ODP)	ORWH
Reentry Sup	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√			√	√
Diversity Sup	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√				
K01	√		√	√	√	√	√	√	√	√	√	√		√	√		√	√	√			√		√			√	
K02				√	√	√	√	√		√	√	√	√		√		√	√									√	
K05						√					√							√										
K07	√				√	√											√					√						
K08	√	√		√	√	√	√	√	√	√	√	√	√	√	√	√	√	√				√					√	
K12	√	√			√					√	√		√		√									√				√
K12-BIRCWH					√	√	√	√		√	√	√		√	√		√										√	√
K18		√		√	√	√	√		√	√	√	√	√	√	√	√	√	√	√			√		√		√		
K22	√	√	√	√		√	√	√		√	√		√	√	√				√	√		√						
K23	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√			√		√			√	
K24	√	√		√	√	√	√	√	√	√	√	√	√	√	√		√	√	√			√		√				
K25	√		√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√									√	
K26					√																			√				
K30 CRCA	√	√		√	√	√	√	√	√	√	√	√	√	√	√	√	√			√	√			√				
K99/R00	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√				
F05 - INF					√						√				√			√										
F30					√	√					√	√	√		√		√	√									√	
F31					√	√					√	√					√	√									√	
F31 - diversity	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√			√		√			√	
F32	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√			√		√			√	
F33	√	√	√	√	√	√	√	√		√		√	√		√	√		√	√			√					√	
T32	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√			√		√			√	
T35		√		√	√		√		√		√	√		√	√			√				√		√		√	√	
R25 - CRECD		√		√	√			√			√			√									√	√				
AITRP	√						√				√		√				√		√		√				√			√

**ORWH/NIH Supplements to Promote Reentry into Biomedical and Behavioral Research Careers**

The ORWH/NIH Reentry Supplement Program helps fully trained scientists (women and men) re-establish their careers in biomedical or behavioral science after taking time off to fulfill

familial responsibilities. The Reentry Program provides administrative supplements to existing NIH research grants for the purpose of supporting full- or part- time research by women or men reentering the scientific workforce. The program is designed to bring the reentry scientist's existing research skills and knowledge up to date, so that, at the completion of the supplement, the scientist will be in a position to apply for a career development or research award. The Reentry Program is supported by: NCI, NEI, NHGRI, NHLBI, NIA, NIAAA, NIAID, NIAMS, NIBIB, NICHD, NIDA, NIDCD, NIDCR, NIDDK, NIEHS, NIGMS, NIMH, NINDS, NINR, NLM, FIC, NCCAM, NCRR, ODS, and ORWH. For more information, see <http://grants.nih.gov/grants/guide/pa-files/PA-04-126.html>.

### ***Research Supplements to Promote Diversity in Health-Related Research***

The NIH recognizes a unique and compelling need to promote diversity in the biomedical, behavioral, clinical and social sciences research workforce. The Research Supplements to Promote Diversity in Health-Related Research provides administrative supplements to existing NIH research grants for the purpose of supporting research by individuals from underrepresented racial and ethnic groups, individuals with disabilities; and individuals from socially, culturally, economically, or educationally disadvantaged backgrounds that have inhibited their ability to pursue a career in health-related research. Individuals in the following career levels can be supported with these supplements: high school students, undergraduate students, post-baccalaureate students and post-master's degree students, predoctoral students, postdoctoral fellows, faculty who wish to participate in ongoing research projects while further developing their own independent research potential, and established investigators who become disabled. All NIH components support the Research Supplements to Promote Diversity in Health-Related Research. For more information, see <http://grants.nih.gov/grants/guide/pa-files/PA-05-015.html>.

### ***K Awards***

#### **K01 Mentored Research Scientist Development Award**

The Mentored Research Scientist Development Award (K01) provides support for a sustained period of “protected time” for intensive research career development under the guidance of an experienced mentor, or sponsor, in the biomedical, behavioral or clinical sciences leading to research independence. The expectation is that through this sustained period of research career development and training, awardees will launch independent research careers and become competitive for new research project grant (R01) funding. The following NIH components participate in the K01 award: NCI, NHGRI, NHLBI, NIA, NIAAA, NIAID, NIAMS, NIBIB, NICHD, NIDA, NIDCD, NIDDK, NIEHS, NIMH, NINDS, NINR, NCCAM, NCRR, and ODS. Supported by the NHLBI as the Mentored Career Development Award to Promote Faculty Diversity in Biomedical Research.

#### **K02 Independent Scientist Award**

The Independent Scientist Award (K02) is intended to foster the development of outstanding scientists and enable them to expand their potential to make significant contributions to their field of research. It provides three, four, or five years of salary support and “protected time” for newly independent scientists (see IC provisions) who can demonstrate the need for a period of

intensive research focus as a means of enhancing their research careers. Each independent scientist career award program must be tailored to meet the individual needs of the candidate. The sponsoring institution must demonstrate a commitment to provide the environment, resources and the protected time required for the candidate to perform the activities included in the proposed research and career development plans. The following NIH components participate in the K02 award: NHLBI, NIA, NIAAA, NIAID, NIAMS, NICHD, NIDA, NIDCD, NIDCR, NIEHS, NIMH, NINDS, and ODS.

### **K05 Senior Scientist Research and Mentorship Award**

The Senior Scientist Research and Mentorship Award (K05) is intended to provide outstanding senior scientists protected time to focus on and enhance their research and to carry out mentoring of new investigators. Each candidate must demonstrate both the need for protected time to further their field of research and a commitment to serve as a mentor to new investigators or junior faculty who are currently performing or will begin to perform alcohol, or drug abuse, or related research. Mentored investigators should have an independent, full-time appointment at their institution; this can be in either non-tenure or tenure-track positions. The K05 award is supported by NIAAA and NIDA.

### **K07 Academic Career Award**

The Academic Career Award (K07) is used by the NIH Institutes and Centers to support individuals interested in introducing or improving curricula in a particular scientific field as a means of enhancing the educational or research capacity at the grantee institution. The Academic Career Award (K07) supports two types of awards, Development and Leadership. The following NIH Institutes and Centers participate in the K07 awards: NCI, NIA, NIAAA, NIMH, and NCCAM.

- In the Development award, up to five years of support are provided to junior candidates who are interested in developing academic and research expertise in a particular field, as a way to increase the overall pool of individuals capable of research or teaching in the identified area. The researcher is expected to learn skills in teaching, curriculum building, research, and leadership during the tenure of the award. The recipient of the Development Academic Career Award is required to choose a formal mentor.
- In the Leadership award, two to five years of support are provided to senior researchers with acknowledged scientific expertise and leadership skills who are interested in improving the curricula and enhancing the research capacity within an academic institution. It is expected that support under this award will increase the visibility and the overall research support or academic capacity for the given field of research within the academic medical/health and research community.

### **K08 Mentored Clinical Scientist Research Career Development Award**

The objective of the Mentored Clinical Scientist Research Career Development Award (K08) is to continue the long standing NIH support of didactic study and mentored research for individuals with clinical doctoral degrees. This award provides support and “protected time” for an intensive, supervised research career development experience in the fields of biomedical or

behavioral research, including translational research. For the purpose of this award, translational research is defined as application of basic research discoveries toward the diagnosis, management, and prevention of disease. The following NIH components participate in the K08 award: NCI, NEI, NHLBI, NIA, NIAAA, NIAID, NIAMS, NIBIB, NICHD, NIDA, NIDCD, NIDCR, NIDDK, NIEHS, NIGMS, NIMH, NINDS, NCCAM, and ODS.

### **K12 Mentored Clinical Scientist Development Program Award**

The Mentored Clinical Scientist Development Program Award is awarded to an educational institution to support career development experiences for clinicians leading to research independence. The details of the K12 programs are determined by each of the participating NIH Institutes and Centers: NCI, NEI, NIA, NICHD, NIDA, NIDCR, and NCRR.

### **K12 Building Interdisciplinary Research Careers in Women's Health (BIRCWH)**

The Office of Research on Women's Health (ORWH) developed the Building Interdisciplinary Research Careers in Women's Health (BIRCWH) Program utilizing the NIH K12 institutional mentored career development award. BIRCWH supports research career development of junior faculty members who have recently completed clinical training or postdoctoral fellowships, and who are beginning basic, translational, clinical, and/or health services research related to women's health. The junior researchers are paired with senior investigators to promote career development. ORWH has issued four BIRCWH RFAs since 2000, and has supported 29 centers with 35 awards. To date, 287 scholars (75% female) have been trained and many have gone on to receive NIH awards and academic positions. The scholars have produced over 827 publications and 782 abstracts and successfully competed for over 90 NIH grants. ORWH cofunds the BIRCWH program with the Agency for Healthcare Research and Quality and the following NIH components: NIA, NIAAA, NIAID, NIAMS, NICHD, NIDA, NIDCD, NIDDK, NIEHS, NIMH, and ODS.

### **K18 Career Enhancement Award for Stem Cell Research**

The Career Enhancement Award for Stem Cell Research (K18) will enable investigators to change the direction of their research careers or to take time from their regular professional responsibilities to broaden their scientific background by acquiring new research capabilities, specifically in the use of human or animal embryonic, adult, or cord blood stem cells. All applicants are required to enlist a well-qualified stem cell expert, either within their own institution or elsewhere, to serve as a sponsor. The sponsor must exhibit previous experience as a research mentor and must provide a description of the nature and extent of supervision that will occur during the proposed award period as well as a description of plans for future, ongoing collaborations after the award is completed. The Career Enhancement Award for Stem Cell Research supports two types of awards, (1) for independent junior faculty who wish to expand their research by the use of stem cells and (2) for senior established investigators who wish to re-direct their research, in whole or in part, to include the use of stem cells. The following NIH Institutes participate in the K18 Career Enhancement Award for Stem Cell Research: NHLBI, NIAAA, NIAID, and NIDDK.

## **K18 Short-Term Interdisciplinary Career Enhancement Awards for Neurodegeneration Research**

The K18 Short-Term Interdisciplinary Career Enhancement Awards for Neurodegeneration Research are supported as part of the Neuroscience Blueprint initiative. This award is designed for established investigators to acquire new interdisciplinary perspectives and capabilities in neurodegeneration research through short-term mentored career development and enhancement training experiences. This research training experience shall take place in a host laboratory, whether within the applicant's own institution or elsewhere, under the mentorship of a well-qualified expert in a research or technical/tool area different than the applicant's neuroscience/scientific or technical discipline. The goal of this initiative is to accelerate progress in neurodegeneration research by stimulating new ideas, fostering new approaches and catalyzing new interdisciplinary research collaborations in cellular, molecular, systems, multisystems, and/or behavioral levels neuroscience that will lead to new research programs competitive for NIH research funding. This K18 award is supported by the NIH Blueprint for Neuroscience Research (<http://neuroscienceblueprint.nih.gov/>), in collaboration with, NEI, NIA, NIAAA, NIBIB, NICHD, NIDA, NIDCD, NIDCR, NIEHS, NIGMS, NIMH, NINDS, NINR, NCCAM, NCCR, and OBSSR.

## **K18 Translational Research**

The NIEHS K18 program consists of short-term, mentored career development awards with a range of 3 months to 1 year, aimed at established investigators to support their development of research capability in the environmental health sciences or in translational research. For more information, see the NIEHS section below.

## **K22 Career Transition Award**

The Career Transition Award provides support to an individual postdoctoral fellow in transition to a faculty position. Most of the Career Transition Awards support both the postdoctoral research phase and the independent investigator phase of research. The details of the K22 programs are determined by each of the participating NIH Institutes and Centers: NCI, NEI, NHGRI, NHLBI, NIAID, NIAMS, NICHD, NIDA, NIDCR, NIDDK, NIEHS, NINR, and NLM, and NCCAM.

## **K23 Mentored Patient-Oriented Research Career Development Award**

The goal of the Mentored Patient-Oriented Research (POR) Career Development Award (K23) program is to ensure a future cadre of well-trained scientists working in POR areas who will become competitive for NIH research project (R01) grant support. The specific objectives of the Mentored Patient-Oriented Research Career Development Award are to (1) encourage research-oriented clinicians to develop independent research skills and gain experience in advanced methods and experimental approaches needed to become an independent investigator conducting patient-oriented research; (2) increase the pool of clinical researchers who can conduct patient-oriented studies, capitalizing on the discoveries of biomedical research and translating them to clinical settings; and (3) support the career development of investigators who have made a



commitment to focus their research endeavors on patient-oriented research. The following NIH components participate in the K23 award: NCI, NEI, NHLBI, NIA, NIAAA, NIAID, NIAMS, NIBIB, NICHD, NIDA, NIDCD, NIDCR, NIDDK, NIEHS, NIGMS, NIMH, NINDS, NINR, NCCAM, NCRR and ODS.

### **K24 Midcareer Investigator Award in Patient-Oriented Research**

The purpose of the Midcareer Investigator Award in Patient-Oriented Research is to provide support for clinician investigators to allow them protected time to devote to patient-oriented research (POR) and to act as research mentors primarily for clinical residents, clinical fellows and/or junior clinical faculty. This award is primarily intended for clinician investigators who are at the Associate Professor level or are functioning at that rank in an academic setting or equivalent non-academic setting, and who have an established record of independent, peer-reviewed federal or private research grant funding in POR. This award is intended to advance both the research and the mentoring endeavors of outstanding patient-oriented investigators. It is expected, for example, that investigators will obtain new or additional independent peer-reviewed funding as the PI for POR and establish and assume leadership roles in collaborative POR programs; and that there will be an increased effort and commitment to mentor beginning clinician investigators in POR to enhance the research productivity of the investigator and increase the pool of well-trained clinical researchers of the future. The following NIH Institutes and Centers participate in the K24 Award: NCI, NEI, NHLBI, NIA, NIAAA, NIAID, NIBIB, NICHD, NIDA, NIDCD, NIDCR, NIDDK, NIEHS, NIMH, NINDS, NINR, NCCAM, and NCRR.

### **K25 Mentored Quantitative Research Development Award**

The K25 Award will support the career development of quantitatively trained investigators who make a commitment to basic or clinical biomedicine, bioengineering, bioimaging or behavioral research that is relevant to the NIH mission. This award provides support for a period of supervised study and research for productive professionals with quantitative backgrounds who have the potential to integrate their quantitative expertise with NIH-relevant research and develop into productive investigators. The K25 program is intended for research-oriented investigators from the postdoctoral level to the level of senior faculty. The following NIH components participate in the K25 program: NCI, NHGRI, NHLBI, NIA, NIAAA, NIAID, NIAMS, NIBIB, NICHD, NIDA, NIDCD, NIDCR, NIDDK, NIEHS, NIGMS, NIMH, NINDS, and ODS.

### **K26 Midcareer Investigator Award in Mouse Pathobiology Research**

The purpose of the Midcareer Investigator Award in Mouse Pathobiology Research is to provide support for established outstanding pathobiologists to allow them protected time to devote to mouse pathobiology research, to relieve them from time consuming service obligations and administrative responsibilities, and to act as mentors for beginning investigators. The target candidates are scientists engaged in mouse pathobiology research who are within 15 years of their specialty training, who can demonstrate the need for a period of intensive research focus as

a means of enhancing their research careers, and who are committed to mentoring the next generation of mouse pathobiologists. The K26 award is supported by NIA and NCRR.

### **K30 Curriculum Development Programs**

The Clinical Research Curriculum Award (CRCA) is designed to attract talented individuals to the challenges of clinical research and to provide them with the critical skills that are needed to translate basic discoveries into clinical treatments. The CRCA is intended to stimulate the inclusion of high-quality, multidisciplinary, didactic training as part of the career development of clinical investigators. It supports the development and/or improvement of core courses designed as in-depth instruction in the fundamental skills, methodologies, and theories necessary for the well-trained, independent, clinical researcher. The K30 CRCA Curriculum Development Program is a trans-NIH program that is administered by the NCRR.

### **K99/R00 NIH Pathways to Independence Awards**

The primary goal of this initiative is to assist investigators in transitioning to a stable independent research position with NIH or other independent research funding. The PI award will provide up to 5 years of support consisting of two phases. The initial mentored phase will provide support for up to 2 years for the most promising and exceptionally talented new investigators who have no more than 5 years of postdoctoral research training experience at the time of initial application or subsequent resubmission(s). This initial phase of mentored support will allow the candidate time to obtain additional training, complete research, publish results, and bridge to an independent research position. The candidate must propose a research project that will be pursued during the K99 phase and transition into an independent project during the R00 phase of the award. All grant-funding NIH Institutes and Centers participate in the K99/R00 awards. In the first round of the Pathways to Independence K99/R00 awards, 48% of the recipients were women.

### ***F Awards***

#### **F05 International Neurosciences Fellowship (INF)**

The goal of the International Neuroscience Fellowship Program is to provide a unique opportunity to qualified foreign neuroscientists, at junior or mid-career level, to receive one to two years of research training in the United States. The NINDS developed this program, with support from NIA, NIDA, and NIEHS. For more details, see the NINDS section below.

#### **F30 Ruth L. Kirschstein National Research Service Awards Individual Predoctoral Awards For M.D. /Ph.D. Fellowships**

Ruth L. Kirschstein National Research Service Award (F30) fellowships are awarded to promising applicants with the potential to become productive, independent, highly trained physician-scientists, including patient-oriented physician-scientists in their scientific mission areas. This funding opportunity supports individual predoctoral F30 fellowships with the expectation that these training opportunities will increase the number of future investigators in

basic, translational and clinical research who are physician scientists. The following NIH components participate in F30 awards: NIA, NIAAA, NIDA, NIDCD, NIDCR, NIEHS, NIMH, NINDS and ODS. NIDCR supports the NIDCR Individual Predoctoral Dental Scholarship Fund which offers an integrated dental and graduate research training program that leads to attainment of both the D.D.S./D.M.D. and Ph.D. (or equivalent) degrees, using the F30 mechanism. For more information, see <http://grants.nih.gov/grants/guide/pa-files/PA-05-151.html>.

### **F31 Ruth L. Kirschstein National Research Service Awards for Individual Predoctoral Fellows**

The objective of this funding opportunity announcement is to help ensure that highly trained scientists will be available in adequate numbers and in appropriate research areas to carry out the nation's biomedical, behavioral, and clinical research agenda. The participating NIH Institutes provide individual predoctoral research training fellowship awards to promising doctoral candidates who have the potential to become productive, independent investigators in research fields relevant to the missions of the participating NIH Institutes and Offices: NIA, NIAAA, NIDA, NIDCD, NIMH, NINDS, and ODS. For more information, see <http://grants.nih.gov/grants/guide/pa-files/PA-07-002.html>.

### **F31 Ruth L. Kirschstein National Research Service Awards for Individual Predoctoral Fellowships to Promote Diversity in Health-Related Research**

The Ruth L. Kirschstein National Research Service Awards for Individual Predoctoral Fellowships to Promote Diversity in Health-Related Research provides up to five years of support for research training leading to the Ph.D. or equivalent research degree, the combined M.D./Ph.D. degree; or another formally combined professional degree and research doctoral degree in biomedical, behavioral, health services, or clinical sciences. These fellowships will enhance the diversity of the biomedical, behavioral, health services, and clinical research labor force in the United States by providing opportunities for academic institutions to identify and recruit students from diverse population groups to seek graduate degrees in health-related research and apply for this fellowship. The overall goal of this program is to increase the number of scientists from diverse population groups who are prepared to pursue careers in biomedical, behavioral, social, clinical, or health services research. The following NIH components participate in the F31 awards: NCI, NEI, NHGRI, NHLBI, NIA, NIAAA, NIAID, NIAMS, NIBIB, NICHD, NIDA, NIDCD, NIDCR, NIDDK, NIEHS, NIGMS, NIMH, NINDS, NINR, NCCAM, NCRR, and ODS. For more information, see <http://grants.nih.gov/grants/guide/pa-files/PA-07-106.html>.

### **F32 Individual Postdoctoral Fellowships**

The Ruth L. Kirschstein National Research Service Awards for Individual Postdoctoral Fellowships is designed to support postdoctoral training within the broad scope of biomedical, behavioral, or clinical research that offers an opportunity to enhance the fellow's understanding of the health-related sciences and extend his/her potential for a productive research career. The following NIH components support the F32 award: NCI, NEI, NHGRI, NHLBI, NIA, NIAAA, NIAID, NIAMS, NIBIB, NICHD, NIDA, NIDCD, NIDCR, NIEHS, NIGMS, NIMH, NINDS,

NINR, NCCAM, NCRR, and ODS. For more information, see <http://grants.nih.gov/grants/guide/pa-files/PA-06-373.html>.

### **F33 Senior Fellowships**

The Ruth L. Kirschstein National Research Service Awards for Senior Fellowships provide support to applicants who have provided a research training proposal that offers an opportunity for individuals to broaden their scientific background or to extend their potential for research in health-related areas as independent researchers. These awards enable individuals who have progressed to the stage of independent investigator, with at least seven years of research experience beyond the doctorate, to take time from regular professional responsibilities for the purpose of receiving training to increase their scientific capabilities. In most cases, this award is used to support sabbatical experiences for established independent scientists seeking support for retraining or additional career development. The following NIH components participate in the F33 awards: NCI, NEI, NHGRI, NHLBI, NIA, NIAAA, NIAID, NIAMS, NICHD, NIDCD, NIDCR, NIEHS, NIGMS, NINDS, NINR, NCCAM, and ODS. For more information, see <http://grants.nih.gov/grants/guide/pa-files/PA-07-172.html>.

### ***T Awards***

#### **T32 Institutional Research Training Grants**

The Ruth L. Kirschstein-National Research Service Award institutional research training grant supports predoctoral, postdoctoral and short-term research training programs at domestic institutions of higher education. Trainees appointed to the research training program must have the opportunity to carry out supervised biomedical, behavioral, or clinical research with the primary objective of developing or enhancing their research skills and knowledge in preparation for a health-related research career. The following NIH components participate in the T32 program: NCI, NEI, NHGRI, NHLBI, NIA, NIAAA, NIAID, NIAMS, NIBIB, NICHD, NIDCD, NIDCR, NIDDK, NIEHS, NIGMS, NIMH, NINDS, NINR, NCCAM, NCRR, and ODS. NIDCR supports the Ruth L. Kirschstein National Research Service Award through its Institutional Dental Research Training Program. For more information, see <http://grants1.nih.gov/grants/guide/pa-files/PA-06-468.html>.

#### **T35 Ruth L. Kirschstein National Research Service Award Short-Term Institutional Research Training Grants**

The National Institutes of Health (NIH) will award Ruth L. Kirschstein National Research Service Award (NRSA) Short-Term Institutional Research Training Grants (T35) to eligible institutions to develop or enhance research training opportunities for individuals interested in careers in biomedical and behavioral research. Many of the NIH Institutes and Centers use this grant mechanism exclusively to support intensive, short-term research training experiences for students in health professional schools during the summer. In addition, the Short-Term Institutional Research Training Grant may be used to support other types of predoctoral and postdoctoral training in focused, often emerging, scientific areas relevant to the mission of the funding NIH institute or center. The following NIH components participate in the T35 program:

NEI, NHLBI, NIA, NIAID, NIBIB, NIDA, NIDCD, NIDDK, NIEHS, NINDS, NCCAM, NCRR, OBSSR, and ODS. For more information, see <http://grants.nih.gov/grants/guide/pa-files/PA-05-117.html>.

### ***Clinical Research Education and Career Development (CRECD)***

The Division of Research Infrastructure in NCRR administers the Clinical Research Education and Career Development (CRECD) awards to develop and implement curriculum-dependent programs in minority institutions to train selected doctoral and postdoctoral candidates in clinical research. The CRECD program is a trans-NIH program that uses the R25 mechanism and is supported by NEI, NHLBI, NIA, NIAMS, NIDA, NIDDK, NCMHD, and NCRR. For more details, see the NCRR section below.

### ***AIDS International Training and Research Program (AITRP)***

The AIDS International Training and Research Program is sponsored by NCI, NIAID, NIDA, NIDCR, NIMH, NINR, FIC, OAR, and ORWH and is described in the Fogarty International Center section below.

## **Office of Behavioral and Social Science Research (OBSSR)**

### ***Training Tomorrow's Scientists: Linking Minorities and Mentors Through the Web***

The OBSSR designed this website to create a link between underrepresented students and faculty eligible for support through the NIH Research Supplements to Promote Diversity in Health-Related Research described at <http://grants.nih.gov/grants/guide/pa-files/PA-05-015.html>. This website contains a listing of NIH-funded Principal Investigators who have self-identified as being interested in participating in the Research Supplements to Promote Diversity in Health-Related Research. Prospective mentees for the research supplement can use this website to search for mentors. To access the website, go to <http://mentorminorities.od.nih.gov/>.

## **Office of Intramural Training and Education (OITE)**

The Office of Intramural Training and Education devotes substantial effort to career development and mentoring activities in the Fellowship Training Programs. These activities are not specifically directed at women, but generally, more than half of the participants are female.

### ***The NIH Virtual Career Center***

The NIH Virtual Career Center brings together a trove of information that could be invaluable to people at every stage of career transition. This website will offer timely, helpful career guidance in addition to highlighting biomedical careers in the context of the larger world of employment opportunities. For more information, see <http://www.training.nih.gov/careers/careercenter/index.html>.

### ***The NIH Virtual Job Fair***

OITE hosts a Virtual Job Fair at <http://www.training.nih.gov/careers/virtualjobfair.asp>, which contains a list of organizations that have positions available for which they are interested in hiring NIH postdoctoral, research, or clinical fellows.

### ***NIH Fellows Committee (FELCOM)***

OITE supports the Fellows Committee (FELCOM), which consists of postdoctoral fellows from each NIH institute and center working to enhance the intramural training program, foster communication among fellows and the NIH community, and serve as a liaison to administration programs affecting the training experience. For more information about FELCOM, see <http://felcom.nih.gov/About/>.

### ***NIH Annual Job Fair***

With support from the ORWH, OITE hosts the Annual NIH Job Fair, in which more than 800 postdoctoral, research, clinical fellows participate. The Annual NIH Job Fair is held in conjunction with the NIH Research Festival, which brings in companies that have biomedical research jobs available.

### ***Visiting Fellows Career Fair***

The Annual NIH Career Fair for Visiting Fellows is jointly organized and sponsored by the Fogarty International Center (FIC), the Office of Intramural Training and Education (OITE) and the NIH Fellows Committee (FELCOM). At the annual Visiting Fellows Career Fair, scientific organizations and embassies of various countries exhibit current career opportunities in their home countries.

### ***Fellows Awards for Research Excellence (FARE)***

The FARE program was established by the NIH Fellows Committee in 1994 as a mechanism for promoting and recognizing research excellence in the intramural program. All graduate students and postdoctoral fellows with less than five years total research experience at the NIH are encouraged to submit abstracts to the FARE competition. The abstracts are evaluated anonymously by study sections composed of tenure-track and tenured NIH investigators, prior FARE winners, and other fellows, on the basis of scientific merit, originality, experimental design, and overall quality. The first authors of the top twenty-five percent of the abstracts in each study section are recognized as FARE winners and receive a \$1000 travel award to be used for presenting her/his work at a scientific meeting. ORWH provides funding for 25% of the awardees in this OITE program. For more information, see <http://felcom.nih.gov/FARE/>.

### ***Science Communication Courses for Postdoctoral Fellows***

OITE, with support from the ORWH and the NIH Fellows Committee, supports many academic activities, including (1) *Writing about Science*, which is a course that teaches fellows how to write articles suitable for publication in peer-reviewed scientific journals; (2) *Speaking about Science*, a course that provides participants with information on how to become an exemplary speaker, to excel in job interviews, and how to deliver scientific presentations using visual aids, including video feedback; (3) *Advanced Speaking about Science*, which builds upon the lessons of the introductory Speaking about Science course; and (4) *Improved Language Skills*, a course that offered to first year Visiting Fellows to enable them to improve their English skills, necessary for future professional development. For more information, see <http://www.training.nih.gov/postdoctoral/prodevopps/skillscourses.asp>.

### ***Survival Skills Workshop***

The ORWH, OITE, and the NIH Fellows Committee support the Survival Skills Workshops for NIH postdoctoral fellows that address the topics of CV/resume writing, job interviewing, negotiating a job offer, grant writing, and establishing a laboratory. For more information, see [http://felcom.nih.gov/Local/Subs/Survival\\_Skills\\_Handouts.html](http://felcom.nih.gov/Local/Subs/Survival_Skills_Handouts.html).

### ***Career Series on Biomedical Research***

This career series provided by OITE consists of panels of experts in career fields for which a biomedical research background is essential, including biodefense, teaching, patents, and technology transfer. The speakers for the career series are all former NIH fellows who can offer up-to-date information and networking contacts for traditional and alternative biomedical research careers. Typical workshops include Careers in Patent Administration, Teaching at a Small College and a Large University, and Careers in Bio-Defense.

### ***ORWH-FAES-NIH High School Student Summer Program***

This summer program for high school students is open to DC metro area students. Each week during the summer, the students met as a group for a lunch-time session where 6-8 of them make presentations on their research. The presence of NIH senior scientific staff at the lunch-time sessions always ensures a lively discussion of each presentation, and helps the students put each research project into a broader biomedical context. All the students are expected to present posters at the NIH Summer Student Poster Presentations day, thereby learning not only how to carry out a research project, but also how to communicate their results to other scientists. For more information, see <http://www.training.nih.gov/student/sip/>.

### ***Fellowship Training Programs for Summer Interns***

For Summer Interns, the OITE offers workshops on preparing for the MCAT and the GRE, Summer Poster Day, and lunchtime talks on various topics including training, education, and career preparation.

### ***Fellowship Training Programs for Postbaccalaureate Trainees***

For Postbaccalaureate trainees, the OITE supports Postbaccalaureate Poster Day, the Postbaccalaureate Career Enhancement Seminars on topics such as Premed Advising, Preparing for the MCAT and Preparing for the GRE, applying for financial aid, interviewing, selecting a graduate or medical school, and alternate careers that can be pursued with a bachelor's degree.

### ***Graduate Partnerships Program***

#### **Pathway Conversations**

In the Graduate Partnerships Program, OITE supports a presentation series called Pathway Conversations, in which scientists in a variety of positions describe their training, the route they took to reach their current job, and the job itself. For more details on the Graduate Partnerships Program, see the section on Trans-NIH programs above.

### **NIH- Israel Program for Israeli Predoctoral Biomedical Researchers**

The NIH - Israel Program for Israeli Predoctoral Biomedical Researchers that exposes pre-doctoral Israeli students at the Sackler Medical Faculty at Tel Aviv University (TAU) to the leading research programs in women's health at the NIH in cooperation with the Office of Intramural Research, Fogarty International Center (FIC), and the Office of Research on Women's Health (ORWH). The program facilitates and enhances biomedical research in Israel, the Middle East, and the US, establishes scientific collaborations between Israel and the NIH, and trains promising students for postdoctoral studies at the NIH. Each year, a joint TAU-NIH committee chooses about five of the best students to join the program, who then perform research in the Israeli laboratory (10 months/year) and the NIH laboratory (2 months/year), for three years. The students that participated in the program have covered many aspects of cutting edge research with a special emphasis on women's health.



## **Office of Loan Repayment**

### ***Undergraduate Scholarship Program for Individuals from Disadvantaged Backgrounds (UGSP)***

The NIH Undergraduate Scholarship Program (UGSP) offers competitive undergraduate scholarships to exceptional students from disadvantaged backgrounds who are committed to biomedical, behavioral, and social science research careers at the NIH. For each full or partial scholarship year, you are committed to two NIH service obligations: a 10 week summer laboratory experience and 1 year of full-time employment after graduation. Since 2000, the ORWH has supported many UGSP scholars from disadvantaged backgrounds who have been competitively selected from a nation-wide pool of candidates. The NIH Office of Loan Repayment and Scholarship awards an average of 15 scholarships each year through the Undergraduate Scholarship Program for Individuals from Disadvantaged Backgrounds to candidates who exemplify measurable development in their biomedical research careers, evidenced, in part, through their academic achievements and research accomplishments. For more information, see <http://www.ugsp.nih.gov/>.

## **Office of Research on Women's Health (ORWH)**

### ***K12 Building Interdisciplinary Research Careers in Women's Health (BIRCWH)***

See trans-NIH section above.

#### ***Training Program in Health Policy for BIRCWH Fellows***

This program, held for the first time in November 2006, was designed to provide BIRCWH scholars with a solid understanding of the health policy legislative process in Washington. The training consisted of a day-long event conducted by the George Washington University Department of Health Policy Faculty in the School of Public Health. Congressional and administration staff members provided vital information on the legislative funding process.

### ***K12 Women's Reproductive Health Research Career Development Program***

The Women's Reproductive Health Research (WRHR) Career Development Program was initiated by the National Institute of Child Health and Human Development (NICHD) in 1998. The ORWH joined NICHD in cosponsoring this institutional career development award to support research career development of WRHR Scholars, who are obstetrician-gynecologists that have recently completed postgraduate clinical training, and are commencing basic, translational, and/or clinical research relevant to women's reproductive health. The goal of this initiative is to promote research that will benefit the health of women by bridging clinical training with research independence, increasing the number and skills of obstetrician-gynecologist investigators at awardee institutions through a mentored research experience leading to an independent scientific career addressing women's reproductive health concerns. There are 20 WRHR Program sites located in Departments of Obstetrics and Gynecology throughout the nation with the primary goal of increasing the research capacity of clinically trained obstetrician-gynecologists. Since 1998, a total of 126 Scholars have been appointed to the program. Information on the WRHR Program may be obtained by visiting <http://www.nichd.nih.gov/research/supported/wrhr.cfm> and

the new national web site hosted by the University of Rochester WRHR Program at <http://www.wrhrscholars.org/>.

### ***Achieving Excellence in Science (AXXS)***

ORWH, in conjunction with The American Society for Cell Biology (ASCB) and the National Institute of Environmental Health Sciences, convened the Achieving Excellence in Science (AXXS) '99 workshop to explore the roles of basic science societies in advancing research by building the careers of all women in science, from the predoctoral stage to the senior scientist level. The workshop was held in December 1999, as a satellite meeting to The ASCB's Annual Meeting in Washington, DC. More than 140 participants representing more than 50 scientific societies, organizations, and government agencies gathered to develop action items that societies could consider for their membership; contribute to an annotated bibliography of the career resources that could be made available as a national resource on the Internet; and exchange information with other workshop participants on the strengths and weaknesses of existing and planned societal programs and resources for their women members. The full report on AXXS '99 is available on-line at <http://www4.od.nih.gov/axxs/>. Following the AXXS meeting, ORWH developed, designed, launched, and now maintains an AXXS web page, which serves as a primary resource for women in biomedical sciences

As a follow-up to the AXXS '99 workshop, ORWH supported AXXS 2002, a 1 ½ day workshop to gather representatives of clinical societies and discuss ways for the societies to enhance the participation of women scientists in the clinical research workforce. Focus was placed on identifying initiatives and action items that clinical societies could adopt, ways for clinical societies to disseminate successful strategies, and ways to collaborate among societies. The workshop, held by the Committee on Women in Science and Engineering (CWSE) of the National Academy of Sciences, discussed: initiatives and action items clinical societies can adopt within their organizations to enhance women's advancement in the clinical research field; ways for clinical societies to disseminate successful strategies to advance women's careers; and ways that clinical societies can collaborate to promote women's contributions to their fields. The full report of AXXS 2002 is available on-line at <http://www4.od.nih.gov/axxs/>.

### ***Association for Women in Science Annual Seminar Series***

The Association for Women in Science (AWIS) is dedicated to achieving equity and full participation for women in science, mathematics, engineering and technology. The Bethesda Chapter of AWIS was formed in 1991 and has grown to over 150 members. Its members are actively engaged in scientific research, education, administration and policy activities, and are employed in federal agencies, academia, business, and non-profit organizations. ORWH provides support for seminars focused on career development for women. For more information, see <http://www.awisbethesda.org/currentseminar.html> for current seminars or <http://www.awisbethesda.org/seminar.html> for past seminars.

### ***American Society for Cell Biology Women in Cell Biology***

Women in Cell Biology (WICB) is a long-standing committee of the ASCB that provides year-round career support and advice. WICB responds to reports of discriminatory practices, offers a speaker referral service to help program organizers identify women speakers, and produces monthly columns for the ASCB Newsletter. In addition, WICB has a traditional presence at the

American Society for Cell Biology Annual Meeting, providing networking and workshop opportunities, which ORWH has supported for many years. More information is available at <http://www.ascb.org/index.cfm?navid=89>.

### ***WISH-net***

WISH-net (Women in Science and Healthcare Network), a portal website dedicated to girls and women interested in the field of science, provides resources to support and encourage girls and women who may otherwise be discouraged from pursuing a career in the sciences, was developed by the Public Responsibility in Medicine and Research (PRIM&R) organization and the ORWH. WISH-net seeks to inspire, mentor, and connect girls and women of all ages in science and healthcare. Throughout the site, WISH-net serves as a vehicle for stimulating and sustaining interest in scientific careers among school-age girls; encouraging women who are pursuing scientific study in college, doctoral programs, or post-doctoral fellowships or training; and supporting the commitment of women who are working in biomedical fields. WISH-net also promotes education, resources, professional and personal development, inspiration, and mentoring to girls and women of all ages and in all stages of their scientific journeys. <http://wish-net.od.nih.gov/>.

### ***Women are Scientists Video and Poster Series and Careers in Science, Women in Research Poster Series***

See Office of Science Education section below.

### ***Minority Faculty Student Partnership Program (MFSP)***

ORWH supports Bio-Trac workshops for the Minority Student Faculty Partnership Program Initiative. These workshops are part of the Foundation for Education in the Sciences, Inc. educational program that includes a series of one-week lecture and “hands-on” laboratory training workshops in different areas of biotechnology that are topical and in demand. The participants in the Minority Faculty Student Partnership Program gain new insights into the current thrust of biotechnology that they are able to take back to their institutions and integrate into their programs. In 2006, twenty-four participants from 11 different colleges and universities participated in these workshops. For more information, see <http://www.biotrac.com/MFSP/MFSPHome.html>.

### ***NIH/ National Medical Association Partnership Travel Award Program***

ORWH supports the NIH/National Medical Association (NMA) partnership committee in providing travel awards to support medical residents and fellows from underrepresented groups who are interested in academic medicine to attend the Annual Convention and Scientific Assembly of the NMA. The awardees participate in a special two day academic skills workshop held in conjunction with the Annual Convention and Scientific Assembly. The topics of the workshop range from how to write a grant to improving time management skills. The intent of this award is to enhance the scientific careers of residents and fellows of all medical and surgical specialties that are considering an academic career, and also to encourage research in disease areas that disproportionately impact the health of underserved communities.

### ***Women's Health Fellowships in Interdisciplinary Women's Health Research (Public Private Partnership)***

The ORWH and the NIH Intramural Program for Research on Women's Health (IPRWH) announced the selection of the first recipients of the NIH Women's Health Fellowships in Intramural Women's Health Research in 2006. These fellowships are funded through the Foundation of the NIH, with donations from Batelle and AstraZeneca, as the result of a new public-private partnership.

The Shared Postdoctoral Fellowship, supported through a donation from Batelle was awarded to Suzanne C. O'Neil, Ph.D., who is performing research jointly at the National Human Genome Research Institute's (NHGRI) Social and Behavioral Research Branch and the National Cancer Institute (NCI). The Clinical/Translational Fellowship, funded through a donation from AstraZeneca, was awarded to Shannon K. Laughlin, M.D. of the Epidemiology branch of the National Institute of Environmental Health (NIEHS) in Research Triangle Park, North Carolina. For more information, please see <http://orwh.od.nih.gov/clinfellowships/index.html>.

### ***ORWH/ NICHD Graduate Partnerships Program Fibroid Fellowship***

The ORWH/NICHD Graduate Partnerships Program Fibroid Fellowship was established to provide for the support of continued studies of uterine fibroids. This fellowship was awarded to Chantal Mayers, who is participating in the Johns Hopkins University Graduate Partnerships Program. The Graduate Partnerships Program (GPP), established in 2000, links the NIH Intramural Research Program with PhD programs at U.S. and international universities. Chantal Mayers is a graduate of Salisbury State University, where she discovered her interest in research. After graduation she sought and was awarded one of the highly competitive post baccalaureate Intramural Research Training Awards with Dr. James Segars in the NICHD. After three years of research with Dr. Segars and colleagues at the Uniformed Services University of the Health Sciences, Chantal joined the Johns Hopkins Graduate Partnerships Program to pursue her Ph.D.

### ***Undergraduate Scholarship Program for Individuals from Disadvantaged Backgrounds (UGSP)***

The ORWH supports the UGSP program described in the Office of Loan Repayment section above.

### ***OITE Programs***

The ORWH supports several of the Office of Intramural Training and Education programs that are described above in the OITE section. See the OITE section above for descriptions of the Fellows Award for Research Education (FARE), Survival Skills Workshop, Career Series on Biomedical Research, Science Communication Courses for Postdoctoral Fellows, NIH Annual Job Fair, Career Enhancement Seminars for Post baccalaureate Trainees, Poster Day for Post baccalaureate Trainees, Premed Advising Workshop for Post baccalaureate Trainees, ORWH-FAES-NIH High School Student Summer Program, and the NIH-Israel Program for Israeli Predoctoral Biomedical Researchers.

## **Office of Science Education (OSE)**

### ***Women are Scientists Video and Poster Series***

These colorful, informative videos and posters were designed for middle-school students by the NIH Office of Science Education (OSE), in collaboration with and support from the ORWH. The series is designed to stimulate the interest of girls in science at a time when they are choosing academic courses that may affect their career options later. In the middle-school years, many girls are discouraged from pursuing advanced levels of study in math and science. This series is intended to make them aware of the many interesting and rewarding careers in the medical sciences and the educational requirements necessary to pursue them. For more information and to request DVDs and Posters, see <http://science.education.nih.gov/women/scientists/index.html>.

### ***Careers in Science, Women in Research Poster Series***

The NIH OSE, supported by the ORWH, designed a series of free posters and a companion website, aimed primarily at middle-school girls. The series emphasizes that science and medical research offer many different career paths, all of which are excellent opportunities for women. They feature careers in neuroscience, heart disease, and cancer research. The posters have been especially popular at teacher conferences, where there is a dearth of materials that focus on women in science. The Careers in Science, Women in Research Poster Series consists of three posters, Women in Neuroscience Research, Women in Heart Disease Research, and Women in Cancer Research. For more information, see <http://science.education.nih.gov/women/careers/index.html>.

### ***LifeWorks website***

Launched in FY 2003, LifeWorks provides in-depth career information on over 100 health and medical science-related careers. Users can search the site and generate a customized list of careers that match their skills and interests. Career-specific information includes educational requirements, recommended high school courses, salary projections, job outlook, training and certification requirements, related careers, and references for further information. Interviews with NIH scientists and other individuals serve as real career examples. The LifeWorks website currently includes 72 "real people" interviews that complement the general career information. Of that number, 41 interviews highlight women in a broad range of health and medical science careers. In 2006, the LifeWorks website (<http://science.education.nih.gov/LifeWorks>) had a total of 8,088 unique visitors (avg. 674 per month) and 10,392 visitor sessions (avg. 866 per month).

## **National Cancer Institute (NCI)**

### ***Introduction to Cancer Research Careers Program***

The National Cancer Institute (NCI) has developed the Introduction to Cancer Research Careers Program (ICRC) to reach out to individuals from disadvantaged backgrounds and to populations that are underrepresented in biomedical research. ICRC participants will have the opportunity to tour the facilities of the NCI and the NIH, listen to and network with research fellows, and potentially interview for an internship with NCI Investigators. This program provides participants with the opportunity to experience the NCI first-hand and personally interact with



the world's leading cancer researchers. To participate in the ICRC Program individuals must have a strong academic record, demonstrated research experience, and a commitment to a career in biomedical, behavioral, or population science research. The ICRC Program sponsors highly-qualified students on an all expense paid, two-day visit to the NCI located in Bethesda, Maryland. There are both summer and 1-2 year research positions for which qualified participants may interview. For more information, see <http://icrc.nci.nih.gov/>.

### ***Paul Calabresi Career Development Award for Clinical Oncology (K12)***

The focus of this program is the career development of clinician scientists and basic research scientists in translational therapeutic research that emphasizes basic research/clinical scientific interactions and team research concepts. The program is named in honor of the late Dr. Paul Calabresi, who was a pioneer in the pharmacological treatment of cancer and early translational research. This honor is in recognition of Dr. Calabresi's humanity, dedication to his patients, mentorship of young clinical oncologists, contributions to understanding and treating cancer, tireless efforts to promote and develop the field of clinical oncology; and ceaseless service to the National Cancer Institute including his participation in the strategic development of the Nation's War on Cancer. Most of all, this award is intended to symbolize the quality and excellence of physician scientists and the non-clinician translational researchers that NCI hopes will become critical contributors to the future elimination of death and suffering from cancer. For more information, see <http://grants.nih.gov/grants/guide/pa-files/PA-06-449.html>.

### ***Interagency Oncology Task Force Joint Fellowship Program***

The NCI and the U.S. Food and Drug Administration (FDA) are offering fellowship training for Ph.D.s, M.D.s, and M.D./Ph.D.s or their equivalents in cancer-related scientific research and research-related regulatory review. The objective of the NCI-FDA fellowships is to train a cadre of scientists in research and research-related regulatory review, policies, and regulations so that they develop a skill set that bridge the two disparate processes. Fellows will learn to build awareness of regulatory requirements into the early stages of the medical product development process and will develop strategies to improve planning throughout research and regulatory review. The program includes a mentoring component, in which fellows will be mentored by an FDA employee. For more information, see <http://iotftraining.nci.nih.gov/index.html>.

### ***Comprehensive Minority Biomedical Branch (CMBB)***

The CMBB sponsors a variety of Career Development Awards that target underrepresented minorities; the CMBB career development portfolio consists of 50% women grantees. More information about the branch and relevant programs are available at <http://minorityopportunities.nci.nih.gov/>.

### ***NCI Cancer Center Supplements for High School and Undergraduate Student Research Experiences (P30S)***

This supplement program is designed to expose promising high school or undergraduate students from underrepresented populations to the excitement of state-of-the-art biomedical cancer research in the basic, clinical and population sciences and to actively promote careers of such individuals in cancer research. Any Principal Investigator (Cancer Center Director) holding an NCI-supported Cancer Center Support Grant with at least two years of support remaining is

eligible to apply for this minority supplement program. These supplements must be used for the sole purpose of providing research experiences for students from underrepresented minority groups. For more information see

<http://minorityopportunities.nci.nih.gov/mTraining/hsP30S.html> and <http://minorityopportunities.nci.nih.gov/mTraining/ugP30S.html>.

### **Minority Supplements to the NCI Cancer Education and Career Development Program (R25TS)**

This program is designed to increase the number of underrepresented minority populations participating in cancer research. By providing research opportunities for underrepresented minorities in the predoctoral phase of their training through supplements to ongoing Cancer Education and Career Development grants, it is anticipated that the numbers of underrepresented individuals in the cancer prevention, control, behavioral and population sciences research field will increase. Graduate students interested in pursuing cancer prevention, cancer control, epidemiology, nutrition, and behavioral and population science research are encouraged to speak with the Office of Sponsored Research (or equivalent office) at their institution. Students must seek out a Principal Investigator that holds an NCI-supported Cancer Education and Career Development Program (R25T) grant with at least two years of remaining support. For more information, see <http://minorityopportunities.nci.nih.gov/mTraining/prer25ts.html>.

### **Minority Supplement to the NCI-Supported Ruth L. Kirschstein National Research Service Award Institutional Research Training Grants (T32S)**

The purpose of the Kirschstein-NRSA T32 supplement is to provide funding to increase the number of predoctoral and postdoctoral trainees from underrepresented minority populations who are interested and motivated in pursuing a long-term career in cancer research. Predoctoral fellows (graduate research assistants) interested in pursuing a doctoral degree in basic cancer research, population-based cancer research and prevention, and cancer control, are eligible for this supplement and are encouraged to speak with the Office of Sponsored Research or equivalent at their institution. Only Principal Investigators of NCI-Supported Ruth L. Kirschstein National Research Service Award Institutional Research Training Grants (T32) may apply for this supplement on behalf of the minority candidate. For more information, see <http://minorityopportunities.nci.nih.gov/mTraining/preT32s.html>.

### **Minority Supplement to NCI Institutional Clinical Oncology Research Career Development Award Program (K12S)**

This supplement award is designed to increase the number of doctors and doctorally degreed Oncology Registered Nurses from underrepresented minority groups who are motivated and properly trained to (1) communicate and collaborate with basic/behavioral research scientists in order to expedite the translation of basic/behavioral information into patient-oriented research; (2) perform independent clinical research that develops and tests rational scientific hypotheses based on fundamental and clinical research findings with the potential for improving the medical care of cancer patients; and (3) design and test innovative clinical protocols and manage all phases (i.e., pilot/Phase I, Phase II, Phase III) of clinical trials research. Postdoctoral fellows

interested in pursuing translational research are encouraged to look into these supplements. Any Principal Investigator holding an NCI-supported Institutional Clinical Oncology Research Career Development Award (K12) with at least two years of support remaining may apply. For more information, see <http://minorityopportunities.nci.nih.gov/mTraining/postK12.html>.

### **NCI Transition Career Development Award to Promote Diversity (K22)**

The NCI K22 Transition Career Development Award to Promote Diversity provides an extended period of protected time and support for individuals who are advanced postdoctoral and/or newly independent research scientists who have been in an independent position for less than two years at the time of the application and are from groups that have been shown to be underrepresented in biomedical research. The first phase of support is provided to federally-employed basic cancer research scientists and the second phase of support is provided to the same investigator in her or his first independent investigator position at an extramural institution. For more information, see <http://grants.nih.gov/grants/guide/pa-files/PA-06-455.html>.

### ***Division of Cancer Prevention***

#### **Cancer Prevention Fellowship Program**

The NCI Cancer Prevention Fellowship Program provides postdoctoral training opportunities at NCI in cancer prevention and control. The purpose of the program is to train individuals from a multiplicity of health sciences disciplines in the field of cancer prevention and control. For more information, see <http://www3.cancer.gov/prevention/pob/index.htm>.

#### **Center for Cancer Research Interns in Residence (CRIR)**

The Cancer Research Interns in Residence (CRIR) Program was inaugurated in 2004 to further embrace diversity among the pool of trainee applicants. Over the past two years 101 students were recruited and 68 placed in labs across the Center for Cancer Research. The Office of Training and Education provided the training dollars, Service & Supply funds, and housing for financially qualified students. For 2006, the network of colleges, universities and minority-targeted programs was expanded to bring a new group of interns to the Center for Cancer Research. For more information, see [http://ccr.nci.nih.gov/careers/student\\_programs.asp](http://ccr.nci.nih.gov/careers/student_programs.asp).

#### **Center for Cancer Research Werner F. Kirsten Student Intern Program**

This program brings high school students from Frederick County, Washington County, and St. John's Literary Institution at Prospect Hall into NCI-Frederick laboratories. High school students apply to the program in their junior year. Scientists review the applications and students are chosen for interviews. After the interviews, scientists and students make selections and program administrators determine final matches. Students work full time in the summer and receive stipends. During the school year they work 3 hours a day as student volunteers and receive high school credits. For more information, see [http://ccr.nci.nih.gov/careers/student\\_programs.asp](http://ccr.nci.nih.gov/careers/student_programs.asp).



## **Center for Cancer Research- Johns Hopkins University Master of Science in Biotechnology Concentration in Molecular Targets and Drug Discovery Technologies**

The Johns Hopkins University and the Center for Cancer Research of the NCI have partnered to create a new concentration in the Master of Science in Biotechnology program, called Molecular Targets and Drug Discovery Technologies. This innovative program will focus on bioassay development, chemical libraries, molecular targets and cancer, and high throughput screening laboratory automation. A special feature of the concentration is the CCR/NCI Fellowship Program. This competitive program will recruit immediate post-baccalaureates to work in CCR/NCI laboratories on projects related to the Molecular Targets Initiative. While studying for the Master of Science in Biotechnology, the fellows will receive paid tuition for up to two years and an annual stipend. Ten Courses will be required for graduation (4 core courses, 6 electives). Practical lab courses are included as part of the curriculum. For more information, see <http://ccr.nci.nih.gov/careers/jhu/>.

### ***Division of Cancer Epidemiology and Genetics (DCEG)***

## **Yale University – National Cancer Institute Partnership Training Program Pre-Doctoral Fellowships in Cancer Epidemiology**

The Yale University – National Cancer Institute Partnership Training Program in cancer epidemiology is a unique training program that partners Yale University's Department of Epidemiology and Public Health (EPH) with the National Cancer Institute's (NCI) Division of Cancer Epidemiology and Genetics (DCEG). Fellowships are available to support students (tuition plus stipend) while they train in modern methodologies for evaluating lifestyle determinants of human cancer risk, with an emphasis on nutritional, environmental, and occupational determinants, including their interactions with genetic factors. Pre-doctoral students are jointly mentored by Yale investigators and NCI investigators. Students will receive didactic instruction in EPH, as students in Yale University's Graduate School of Arts and Sciences (Graduate School). Dissertation research is conducted with cancer epidemiologists at the NCI in collaboration with Yale faculty, with access to an extensive portfolio of research and resources available through the NCI DCEG. Yale University will award the Ph.D. upon successful completion of the program. For more information, see <http://publichealth.yale.edu/nci/index.html>.

### ***Intramural Program***

## **Sallie Rosen Kaplan Postdoctoral Fellowship for Women Scientists in Cancer Research**

The Sallie Rosen Kaplan Fellowship for Women Scientists in Cancer Research is made possible by a generous bequest to the Foundation for NIH (FNIH). This is a competitive program for women postdoctoral fellows who have earned a degree within 5 years, and are applying to train in any of the NCI's intramural research settings, including basic, clinical, epidemiological, and

prevention science. Fellows will be supported by a Cancer Research Training Award (CRTA), with an augmented stipend in the first year provided by the FNIH. This information can also be found on-line at [http://www.fnih.org/programs/education/sallie\\_kaplan.shtml](http://www.fnih.org/programs/education/sallie_kaplan.shtml).

### **Knowledge Management: A Mentoring Program**

Knowledge Management is a mentoring program that promotes sharing and teaching of critical skills and institutional knowledge, and nurtures the professional growth of NCI employees. Mentees gain specific skills, a meaningful understanding of the NCI mission and culture as well as overall assistance in planning a career path. The program also gives qualified employees the opportunity to further develop and demonstrate leadership skills, teamwork abilities, and networking skills.

## **National Eye Institute (NEI)**

### ***NEI Clinician Scientist Development Program***

The National Eye Institute (NEI) Division of Intramural Research announces a Clinician Scientist Career Development Program (CSCDP) designed for board eligible/certified clinicians who seek additional training to develop an independent research program that integrates the field of vision research with clinical study of patients with ocular disease or disorders. The participants will be given support to develop their own integrated, clinical laboratory science research program that could then serve as the basis for an independent research career. The goal of the program is to train investigators who will be competitive for independent investigator positions at the NEI, other NIH Institutes, or other top medical research centers. The clinician scientist, with the assistance of a mentor, will design a project that will integrate bench research with the direct study and/or treatment of human subjects. The NEI will provide a competitive salary and an infrastructure to support the project, including laboratory space and supplies, clinical research resources, and support staff. The program is renewable, annually, for up to five years. For more information, see <http://www.nei.nih.gov/jobs/NEIClinSciDevProg.asp>.

## **National Human Genome Research Institute (NHGRI)**

### ***NHGRI Division of Intramural Research Intramural Training Office (ITO)***

The ITO serves as the focal point for training at NHGRI and offers a variety of information and resources including:

- Career development seminars
- Funding resources
- Educational programs
- Conflict resolution and problem solving
- Matching trainees to individual research labs
- Mentoring (each year an award is given to an outstanding faculty mentor)

The ITO, in collaboration with the NHGRI Education and Community Involvement Branch, is dedicated to expanding and developing programs to increase diversity within NHGRI. For more information on the ITO, see <http://www.genome.gov/10005818>.

### ***Minority Action Plan Portal and Research Tool***

NHGRI maintains an entry portal for students interested in research careers in genome science and the ethical, legal and social implications (ELSI) of genome research. It is also designed to facilitate meaningful exchange between program coordinators and Principal Investigators (PI). To access the Minority Action Plan Portal and Research Tool, go to <http://www.genome.gov/14514219>.

### ***Non-Doctoral Level Training in Social and Behavioral Research***

Through the Social and Behavioral Research Branch (SBRB), NHGRI provides non-doctoral level training in social and behavioral research for recent college graduates who would like to pursue multidisciplinary training in social, behavioral, and ethical factors that facilitate translation of genomic discoveries for health promotion, disease prevention, genetic counseling, and health care improvements. Trainees work closely with internationally-recognized social and behavioral scientists, clinical investigators, and bioethicists during their fellowship. This trainee position is supported through the NIH Postbaccalaureate IRTA fellowship program. For more information, see <http://www.genome.gov/13013961>.

### ***Health Disparities Visiting Faculty Program***

The NHGRI and the National Center on Minority Health and Health Disparities (NCMHD) co-fund the NHGRI Health Disparities Visiting Faculty Program, which provides researchers focused on genomics and health disparities with the opportunity to spend a 6 to 12 month period at NHGRI. Visiting faculty will work with senior or associate investigators in NHGRI laboratories located in Bethesda, Md. or Baltimore. Visiting faculty will have the opportunity to learn new technologies, develop research collaborations, or conduct sabbatical research. Basic and social science researchers may access NHGRI's laboratories, core facilities, clinics and training programs for study in any area of human genetic disease including the ethical, legal, and social implications of such research. Researchers are expected to share their skills and experience upon return to their home institutions and applications will be evaluated based on this criterion. For more information, see <http://www.genome.gov/11509055>.

### ***Medical Genetics Residency Training Program***

NHGRI offers a three-year residency program in medical genetics that trains physicians to diagnose, manage and counsel patients with genetic disorders. Participants gain broad experience in clinical and molecular genetics, metabolic diseases and cytogenetics. The NHGRI program is unparalleled in several respects. It exposes students to rare genetic disorders that might not be seen in a more typical medical genetics program; it is one of the few, three-year programs that emphasizes clinical research, and it grants access to the vast resources at the National Institutes of Health (NIH) and at other, highly ranked medical institutions in the nation's capitol. For more information, see <http://www.genome.gov/10000458>.

### ***NHGRI Medical Genetics Training Program***

The National Human Genome Research Institute (NHGRI) sponsors the Medical Genetics Training Program, which offers two-year fellowships for M.D.s and Ph.D.s in cytogenetics, biochemical genetics and molecular genetics. This program provides a remarkable opportunity for participants to conduct genetics research in some of the world's most advanced laboratories

while gaining valuable clinical experience in the Washington, D.C. area. Participants gain broad expertise in basic and clinical genetics research and diagnostics. For more information, see <http://www.genome.gov/10001096>.

### ***Physician-Scientist Development Program***

The Physician Scientist Development Program (PSDP) is a mentored, pre-tenure track junior faculty position. The program lasts for three to five years during which time the incumbent designs and implements an integrated, translational research program. The key elements of support for the program are that it is prospectively and stably funded, that defined mentorship is provided, and that the program takes advantage of the research environment of the intramural NHGRI and the NIH Clinical Center. The participant, with the assistance of the mentor, will design a translational research project that is of interest to the candidate and exploits the research strengths of the intramural NIH environment. For more information, see <http://www.genome.gov/10002060>.

### ***Combined Pediatrics and Medical Genetics Residency Program***

The National Human Genome Research Institute (NHGRI), in conjunction with the Children's National Medical Center (CNMC), offers a remarkable opportunity for medical school graduates to complete a combined, five-year residency program in pediatrics and medical genetics. This special program trains physicians in pediatric medicine as well as in the diagnosis, management and counseling of patients with genetic disorders. Participants gain broad experience in pediatrics, clinical and molecular genetics, metabolic diseases and cytogenetics. The Combined Pediatrics and Medical Genetics Residency Program is unparalleled in several respects: It trains residents in one of the nation's most prestigious children's hospitals; it exposes students to rare genetic disorders that might not be seen in a more typical medical genetics program; it is one of the few programs that emphasizes clinical research; and it grants access to the vast resources at the National Institutes of Health (NIH) and at other highly ranked medical institutions in the nation's capitol. For more information, see <http://www.genome.gov/10000987>.

### ***Johns Hopkins University/NHGRI Genetic Counseling Graduate Program***

The National Human Genome Research Institute (NHGRI) and the Johns Hopkins University (JHU) together offer an opportunity to earn a Master's degree (ScM) in genetic counseling from the Department of Health Policy and Management at the JHU Bloomberg School of Public Health. Students have access to unparalleled resources in clinical settings throughout the Baltimore/Washington, D.C. area. The program is unique in its emphasis on psychological aspects of genetic counseling as well as research methodology and public policy issues. Candidates must have a bachelor's degree from an accredited American college or university, undergraduate courses in biochemistry, genetics, and statistics, and prior counseling experience. For more information, see <http://www.genome.gov/10001156>.

### ***Genetics and Public Policy Fellowship***

NHGRI and the American Society of Human Genetics co-sponsor this genetics/policy fellowship. This is a 16-month fellowship program designed for genetics professionals with an advanced degree who are early in their careers and interested in the development and implementation of genetics health and research policies at the national level. The fellow will

have the opportunity to participate in policy analysis at the NHGRI and the ASHG and to work directly with the U.S. Congress. For more information, see <http://www.genome.gov/10003979>.

## **National Heart, Lung, and Blood Institute (NHLBI)**

### ***Expansion of Special Leave Guidelines***

The NHLBI expanded its Special Leave Guidelines for recipients of NHLBI mentored career development awards (K01, K08, K22, K23, and K25) to enable and encourage individuals to pursue research training while meeting family obligations by promoting “family-friendly” training policies. The special leave provision accommodates circumstances (e.g., medical conditions, disability, personal or family situations such as child or elder care) in which trainees may find it necessary to take a leave of absence, pursue a period of training at another institution, or work below the minimum 75% effort. This is particularly important for women trainees who often delay childrearing to participate in lengthy training programs. A document on the NHLBI Web site ([http://www.nhlbi.nih.gov/funding/training/redbook/sl\\_guide.htm](http://www.nhlbi.nih.gov/funding/training/redbook/sl_guide.htm)) summarizes relevant NIH and NHLBI policies.

### ***Biomedical Research Training Program for Individuals from Underrepresented Groups***

The NHLBI has established a Biomedical Research Training Program for Individuals from Underrepresented Groups (BRTUG) that offers opportunities for underrepresented undergraduate, post baccalaureate individuals, and graduate students to receive training in fundamental biomedical sciences and clinical research disciplines. The purpose of BRTUG is to provide research training opportunities to individuals from health disparities groups that are underrepresented in health-related research. The BRTUG offers each participant the opportunity to work closely with leading research scientists in NHLBI laboratories and offices on (1) clinical research on the normal and abnormal pathophysiologic functioning of the heart, lungs, and blood and in genetic studies of inherited diseases of these systems; (2) basic research on normal and abnormal cellular behavior at the molecular level, and (3) training in epidemiology, clinical trials, and biostatistics relating to the prevalence, etiology, prevention, and treatment of heart, vascular, pulmonary, and blood diseases. The program is designed to provide trainees with hands-on training in a research environment and an opportunity to present their scientific research at national meetings. These research training experiences will prepare students to continue their studies and advance their career in clinical and basic research. For more information, see <http://www.nhlbi.nih.gov/funding/training/redbook/brtug.htm>.

### ***NHLBI Career Transition Award (K22)***

The goal of the NHLBI K22 program is to provide highly qualified postdoctoral fellows with an opportunity to receive mentored research experience in the NHLBI Division of Intramural Research and then to provide them with bridge funding to facilitate the transition of their research programs as new investigators at extramural institutions. To achieve these objectives, the NHLBI Career Transition Award will support two phases of research: an intramural phase and an extramural phase, for a total of four to five years of combined support. Transition from the intramural phase of support to the extramural phase is not automatic. The extramural institution must demonstrate a commitment to the candidate by providing protected research time

and space needed to perform the proposed research. Matching funds from the extramural institution for equipment and supplies (and if necessary, salary) are encouraged. For more information, see <http://grants.nih.gov/grants/guide/pa-files/PA-07-317.html>.

### ***Development of Tools to Promote Research Careers for New Investigators***

#### **Helpful Hints for Applicants Preparing Career Development Awards**

Accessible on the NHLBI the career development Web page, this document provides helpful hints for preparing competitive career development applications. For more information, see <http://www.nhlbi.nih.gov/funding/training/index.htm>.

#### **Availability of Career Development Award Model Applications**

In response to frequent requests from potential applicants for examples of applications that were highly rated by an initial review group, the NHLBI has posted “model” career development award applications on its Web site. For more information, see <http://www.nhlbi.nih.gov/funding/training/index.htm>.

#### **NRSA Training Grants (T32s) Database for Trainees**

The NHLBI also has made available on its Web site a database of active National Research Service Award training grants (T32s) in the expectation that this resource will significantly enhance the ability of new investigators to locate opportunities for research training and faculty positions. For more information, see <http://apps.nhlbi.nih.gov/trainingt32/>.

### **National Institute on Aging (NIA)**

#### ***Promoting Aging Research Careers in Health Disparities (K01 Award)***

K01 Awards supported by the NIA include several supported under the RFA “Promoting Aging Research Careers in Health Disparities,” which supports research to develop basic knowledge, innovative treatments, techniques and programs focused on challenges of reaching racial, ethnic, economic and educationally disadvantaged groups, and on understanding diseases that disproportionately affect the elderly members of these groups and providing appropriate care and treatment.

#### ***The Paul B. Beeson Career Development Awards in Aging Research***

The Beeson program offers three- to five-year faculty development awards to outstanding junior and mid-career faculty committed to academic careers in aging related research, training and practice. For each scholar, a senior faculty member at the scholar's institution is selected to serve as a mentor. The mentor guides the scholar's research and career development and provides access to organizations, programs, and colleagues helpful to the scholar's efforts. More than one mentor may be selected. This program uses the K08 and K23 award mechanisms.

The goals of the program are (1) to encourage and assist the development of future leaders in the field of aging by supporting faculty members early in their careers to gain additional research training as needed and to establish independent programs in aging research, (2) to deepen the



commitment of research institutions to academic research in aging and to translating research outcomes to geriatric medicine by involving mentor and recipient in establishing and advancing the recipient's career in aging research, (3) to expand medical research on aging broadly defined as including the biology of aging, maintenance of health and independence in old age, diseases and disabilities of old age and issues in their clinical management, and systems of care for the elderly, and (4) to foster the independent research careers of clinically trained investigators whose research will enhance the health and quality of life of Americans, particularly older people. For more information, see <http://grants.nih.gov/grants/guide/rfa-files/RFA-AG-07-001.html>.

### ***Summer Institute on Aging Research***

This annual, one-week event provides junior investigators an opportunity to learn about the substance and methodology of aging research from recognized experts in the field. The goal is to enhance participants' potential for success as independent investigators. Racial and ethnic minority investigators and researchers interested in research on minority health are especially encouraged to apply. A link to the application is available at <http://www.nia.nih.gov/GrantsAndTraining/FundingOpportunities/>,

### ***Technical Assistance Workshop***

The NIA sponsors an intensive two-day workshop each year on the research grant application process for minority investigators and for scientists with a commitment to ethnic/minority aging research from the extramural community. For more information, see <http://www.nia.nih.gov/NewsAndEvents/Calendar/2007TAW.htm>.

### ***Regional Training Meetings***

These meetings inform young investigators new to aging research about NIA programs. Investigators who are members of groups underrepresented in aging research are also encouraged to attend. In addition to disseminating information, the regional meetings obtain reactions to ongoing programs and information on research training needs. This forum serves as an important avenue of outreach to underrepresented groups.

### ***Method to Extend Research in Time (MERIT) Diversity Supplement Program***

The NIA provides administrative supplements to senior scientists with MERIT (R37) awards to improve the diversity of the research workforce by supporting and recruiting students, postdoctorates, and eligible investigators from groups that have been shown to be underrepresented. Selected candidates will participate in research training opportunities such as introduction to a research environment; learning of specific methodological techniques; analysis of data; publications for the candidate, and conduct of research under supervision of the MERIT award recipient who also serves as the mentor. For contact information, see <http://www.nia.nih.gov/GrantsAndTraining/FundingOpportunities/r37.htm>.

## **National Institute of Alcoholism and Alcohol Abuse (NIAAA)**

### ***NIAAA Career Transition Award (K22)***

The NIAAA K22 Career Transition Award is designed to facilitate the ability of outstanding young investigators with 2 to 6 years of postdoctoral training to establish an independent research program in basic, behavioral or clinical research related to the health risks and benefits of alcohol consumption, or the prevention and treatment of alcohol-related disorders. The award provides support for salary and research-related expenses once the investigator transitions to an independent faculty position. The first phase of the award can be awarded to (1) advanced postdoctoral fellows at extramural research institutions who are currently supported by an NIAAA-sponsored Ruth L. Kirschstein NRSA for Individual Postdoctoral Fellows or an Institutional Research Training Grant or (2) current Intramural Research Training Awardees (IRTA) or equivalent staff fellows in the NIAAA Division of Intramural Clinical and Biological Research (DICBR). For more information, see <http://grants.nih.gov/grants/guide/pa-files/PAR-06-096.html>.

### ***Collaborative Neurological Sciences (CNS) Award***

The purpose of the Collaborative Neurological Sciences (CNS) Award, supported by the NINDS and the NIAAA, is to encourage collaborative research investigations among scientists at minority institutions and grantees from leading research laboratories that have NIH or equivalent grant support to conduct neuroscience research. For more information on this award, see the NINDS section below.

## **National Institutes of Allergy and Infectious Diseases (NIAID)**

### ***Primary Caregiver Technical Assistance Supplements***

The PCTAS program was originally conceived by Dr. Laurie Glimcher from Harvard. She piloted this idea in her own lab and then approached the NIAID Director, Dr. Fauci. Since the first year of the program (FY 2005), three awards have been made. This supplement award provides PIs who are NIAID grantees with additional funds to hire a mid-to-senior level technician to fill in when the caregiver needs to be away from the lab. Support applies to grant types: R01, R10, R18, R22, R24, R37, P01, P20, P30, P40, P41, P50, P51, P60, U01, U10, U19, U41, U42, and U54. For more information, see <http://www.niaid.nih.gov/ncn/training/pctas.htm>.

### ***NIAID Research Scholar Development Award (K22)***

The NIAID K22 award will provide 2 years of support at the beginning of a junior scientist's independent research career. The award is limited to postdoctoral trainees who propose research relevant to the mission of the NIAID. The initial (Phase 1) application will be submitted while the candidate (principal investigator) is in a postdoc position or equivalent at any domestic for-profit or non-profit institution/organization such as a university, college, hospital, and laboratory, or eligible agency of the Federal government, including NIH intramural laboratories. NIH intramural postdocs from other institutes and centers who work in areas relevant to NIAID's scientific mission, are eligible to apply for this award. The subsequent Phase 2 of the application should be submitted on behalf of the principal investigator by any domestic for-profit or non-profit institution/organization such as universities, colleges, hospitals, and laboratories at which



the awardee has been recruited, offered and has accepted a tenure-track, full-time assistant professor position (or equivalent). For more information, see <http://grants.nih.gov/grants/guide/pa-files/PAR-07-347.html>.

### ***National Biosafety and Biocontainment Training Program (NBBTP)***

The National Biosafety and Biocontainment Training Program (NBBTP) was conceived as a partnership between the NIH Division of Occupational Health and Safety and the NIAID. The NBBTP is administered by the Frontline Healthcare Workers Safety Foundation, Ltd., a not-for-profit, 501 (c)(3) education and research foundation. The NBBTP provides a rare opportunity to receive professional training in biosafety and biocontainment at the foremost biomedical research center in the world. Two-year post baccalaureate and post-doctoral fellowships provide an extraordinary learning environment and rigorous program including academic training, experiential learning, mentorship, developmental assignments, and applied occupational safety and health research opportunities. For more information, see <http://www.nbbtp.org/>.

### ***Global Infectious Disease Research Training Program Award***

NIAID supports the Fogarty International Center (FIC) Global Infectious Disease Research Training Program Award, which is described in the FIC section below.

## **National Institute of Arthritis and Musculoskeletal and Skin Disease (NIAMS)**

### ***The Collaborative Arthritis and Musculoskeletal and Skin Diseases Sciences Award (CAMSSA)***

The Collaborative Arthritis and Musculoskeletal and Skin Diseases Sciences Award (S11) is a program for applicants from institutions with substantial minority enrollment. The applicant investigator must be a full-time faculty member of a minority serving institution and must document the potential for excellence in research. The applicant submits an investigator initiated project in which the applicant collaborates with a senior scientist from a research intensive institution on a clearly defined area of mutual research interest. A modest subcontract to the collaborating investigator may be included to offset costs of the collaboration. For more information, see <http://grants.nih.gov/grants/guide/pa-files/PAR-04-003.html>.

### ***Minority Research Enhancement Award (MIREA)***

The Minority Research Enhancement Award (MIREA) is an administrative supplement to an R01, R37, P01, P30, P50, or P60 grant for the support of a faculty member of a minority serving institution to collaborate with the principal investigator of the active NIAMS grant. The MIREA may be one mechanism for funding an initial collaboration to produce preliminary data for the CAMSSA. However, a MIREA is not a prerequisite for a CAMSSA.

## **National Institute of Biomedical Imaging and Bioengineering (NIBIB)**

### ***HHMI-NIBIB Interfaces Initiative for Interdisciplinary Graduate Research Training***

The Howard Hughes Medical Institute (HHMI) and the NIBIB have launched a new program to develop and sustain interdisciplinary research graduate training programs. This two-phase program represents an innovative new partnership between the HHMI and the NIBIB that takes advantage of the strengths of each organization. Phase I, funded by HHMI in November 2005, supported the establishment of 10 new interdisciplinary graduate training programs around the country. Phase II, to be funded by the NIBIB in early 2009, will be open to the programs funded in Phase I and to other programs who can demonstrate that they meet the original program requirements. This competition will use the T32 institutional training mechanism to provide five additional years of support to the HHMI trainees and sustain these interdisciplinary graduate training programs through their critical early years. For more information, see <http://www.hhmi.org/grants/institutions/nibib.html>.

### ***NIH-NSF Bioengineering and Bioinformatics Summer Institutes (BBSI) Program***

The NIBIB and the National Science Foundation (NSF) have identified bioengineering and bioinformatics as essential interdisciplinary disciplines for the physical and life sciences. The NIH/NSF Bioengineering and Bioinformatics Summer Institutes (BBSI) Program was developed to attract quantitative science majors to biomedical careers, to meet anticipated bioengineering and bioinformatics human resource needs, specifically by targeting the career "pipeline" at a critical juncture. The 10-week program was initiated in 2002, and is targeted to junior and senior undergraduates and early graduate students, providing them with interdisciplinary bioengineering or bioinformatics research and education experiences. U.S. academic institutions of higher education that have strong interdisciplinary research programs are eligible for BBSI awards. BBSIs currently are established at 13 universities and support more than 150 trainees per year. For more information, see <http://bbsi.eecom.com/>.

### ***Biomedical Engineering Summer Internship Program (BESIP)***

The NIBIB sponsors the Biomedical Engineering Summer Internship Program (BESIP) for undergraduate biomedical engineering students who have completed their junior year of college. This ten-week program allows rising senior biomedical engineering students from around the country to participate, under the mentorship of world class scientists, in cutting edge biomedical research projects in NIH intramural laboratories. These students also attend lectures, participate in group laboratory meetings, visit laboratories, and present their research results at the end of the summer. More than 90 interns have participated in the BESIP program since 1999. For more information, see <http://www.nibib.nih.gov/Training/UndergradGrad/besip/home>.

### ***UMBC Meyerhoff Scholarship Program***

The NIBIB, in partnership with the NSF, supports the Meyerhoff Scholarship Program, which provides scholarships to minority undergraduates at UMBC who are interested in pursuing

doctoral study in science, technology, engineering, or mathematics (STEM). This umbrella program helps to build productive capacity and output within institutions with significant enrollments of minority populations underrepresented within STEM professionals. For more information, see <http://www.umbc.edu/meyerhoff/>.

### ***Residency Supplements to Promote Clinical Resident Research Experiences***

The NIBIB Residency Supplement program provides a 1-2 year research experience for clinical residents or fellows in a residency program through supplements to existing NIBIB grants. The program targets applicants who have demonstrated previous experience or the potential for productive research in an area of interest to the candidate and of relevance to the mission of the NIBIB. For more information, see <http://grants.nih.gov/grants/guide/pa-files/PA-06-531.html>.

## **National Institute of Child Health and Human Development (NICHD)**

### ***NICHD Career Transition Award (K22)***

The overall goals of this program are to develop the next generation of exceptionally talented new scientists who are committed to a career in biomedical or behavioral research in areas within the mission of the NICHD, by providing such individuals with research training in the NICHD Division of Intramural Research (DIR), and to facilitate their successful transition to an extramural environment as independent researchers. The Award involves two distinct phases: (I) up to two years of research within the Intramural Research Program at NICHD facilities and (II) up to two years of faculty support at an extramural institution within the U.S. The sole eligible applicant organization for the intramural phase is the NICHD DIR. For the extramural phase, eligible domestic institutions include for-profit and non-profit organizations, and public or private organizations such as universities, colleges, hospitals, and laboratories at which the Candidate has been offered a tenure-track or equivalent position. Eligible Principal Investigators include outstanding postdoctoral candidates who have clinical or research doctorates, who have had at least one year but no more than five years of postdoctoral research training, and who are currently in a Fellowship in the NICHD DIR or are poised to enter DIR as a Fellow at the time of award. For more information, see <http://grants.nih.gov/grants/guide/pa-files/PA-06-078.html>.

### ***K12 Women's Reproductive Health Research Career Development Program***

See Office of Research on Women's Health section above.

## **National Institute on Drug Abuse (NIDA)**

### ***NIDA Scholars Program (K22)***

The purpose of this program is to provide an opportunity for outstanding new investigators to begin their independent research careers (the intramural phase) first within the collaborative and mentoring environment of the NIDA intramural research program (IRP) and then to continue their careers (the extramural phase) at an institution of their choice. This program is also intended to continually enhance and invigorate the NIDA intramural community by providing a cadre of new, creative scientists who will interact with and expand the collaborative research opportunities of NIDA intramural scientists. During the intramural phase of the program, the

IRP will provide the Scholar the necessary resources to progress to a stage of research independence through a mentored 2-4 year experience within the NIDA IRP. For more information, see <http://grants.nih.gov/grants/guide/pa-files/PAR-00-092.html>.

### ***Minority Recruitment & Training Program***

The MRTP program is sponsored by NIDA's Division of Intramural Research in Baltimore, Maryland. It gives talented students (e.g. undergraduates, graduate students, medical students) and faculty an opportunity to work in a lab during the summer with leading intramural scientists. The program, which was started in 1991, has engaged 136 undergraduate, graduate and medical students in research activities at the IRP, NIDA. In this program, students will gain basic science and/or clinical laboratory experience, attend student seminars and participate in a summer participate in summer poster presentation. Participants are competitively selected from across the country. For more information, see <http://www.nida.nih.gov/Infofacts/minority.html>.

### ***Summer Research with NIDA Grantees***

Summer Research with NIDA Grantees introduces high school and undergraduate students from underrepresented groups to drug abuse research through research placements with NIDA grantees in the extramural community. Students work with the grantees for 8-10 weeks. The experience may include formal courses, participation in meetings, data collection activities, data analysis, laboratory experiments, manuscript preparation and library research. The program exposes students to drug abuse research and encourages them to pursue careers in biomedical and behavioral research. Since 1997, over 390 students have gained research experience in drug abuse research. For more information, see <http://www.drugabuse.gov/about/organization/SPO/SPOHome.html>.

### ***Special Populations Research Development Seminar Series***

Established in 1986, the Special Populations Research Development Seminar Series provides technical assistance on proposal development skills in drug abuse research to scholars underrepresented in the field of drug abuse and addiction. Participants are exposed to critical information related to research design, methods, scientific writing, the peer review process and grant application preparation by experts in the field of drug abuse research and addiction. Seminar Series participants attend the two day seminars in the Washington, DC metropolitan area. For more information, see <http://www.nida.nih.gov/about/organization/spo/spohome.html>.

### ***Grant Writing and Proposal Development Assistance***

New researchers can access grant writing tutorials, information on research design and links to the addictions community through <http://www.theresearchassistant.com/>.

### ***Minority Institutions' Drug Abuse Research Development Program (MIDARP)***

The Minority Institutions' Drug Abuse Research Program provides research support to minority institutions to increase the capacity of their faculty, staff and students. The grants enable

minority institutions to conduct rigorous drug abuse research in all areas of research supported by the NIDA including neuroscience, behavioral, clinical, social science, public health, biological, HIV/AIDS and health service areas. This program is designed to broaden the scientific knowledge base in drug abuse in those areas where minority institutions may have particular interest, knowledge and commitment. The application must propose an institutional development plan, and research project(s) that will provide research support for faculty and research experience for students. For more information, see <http://grants.nih.gov/grants/guide/pa-files/PA-05-069.html>.

### ***Historically Black Colleges and Universities (HBCU) Initiative***

Since 1993, the Special Populations Office has taken the lead on the HBCU Initiative at NIDA to encourage interest and increase the involvement of HBCUs in drug abuse research. Based on an assessment of the reasons for low participation of HBCUs in NIDA sponsored research, strategies were developed to provide various forms of infrastructure/capacity building support and research experiences to HBCU faculty and students. These have included technical assistance, support of a research center, support of the Lonnie Mitchell conference and the release of an HBCU Research Scientist RFA. One program, the Recruited Scientist Program co-funded by the National Center on Minority Health and Health Disparities, provides support to three Historically Black Colleges and Universities (Howard, Morgan, and North Carolina Central Universities). Through technical assistance efforts designed specifically for Historically Black Colleges and Universities faculty, awards were made to other Historically Black Colleges and Universities in response to ongoing program announcements.

## **National Institute on Deafness and Other Communication Disorders (NIDCD)**

### ***NIDCD Mentors Directory for Deaf and Hard-of-Hearing Individuals***

In 2005, the NIDCD developed the Mentors Directory for Deaf and Hard-of-Hearing Individuals, which provides a unique opportunity for deaf and hard-of-hearing (HoH) individuals interested in careers in research on hearing, balance, smell, taste, voice, speech or language. The Mentors Directory is a valuable resource that assists hearing-impaired students, postdoctoral fellows and new investigators in identifying and forging a mentorship relationship with established NIDCD-funded Extramural or Intramural investigators across the scientific mission areas of the NIDCD. The Mentors Directory serves as a prototype for mentors' directories across disadvantaged groups and health professional communities and is searchable by location or by NIDCD research areas and education level of the mentee. To date, the NIDCD Mentors Directory for Deaf and Hard-of-Hearing Individuals (<http://www.nidcd.nih.gov/mentor/index.asp>) been queried by nearly 6,000 searches.

## **National Institute of Dental and Craniofacial Research (NIDCR)**

### ***Residency in Dental Public Health***

The NIDCR sponsors a 12 month full-time or 12 month equivalent part-time Residency Program in Dental Public Health. Qualified applicants with a DDS or DMD degree or its equivalent and a

prerequisite graduate degree in public health are eligible to apply. The Residency Program provides a formal training opportunity for dentists planning careers in dental public health, with an emphasis on oral and craniofacial, health-related epidemiologic research. While emphasizing research training and oral disease prevention and health promotion, the residency also provides experience in other areas of dental public health, i.e., public health administration and management, the organization and financing of dental care programs, and the development of resources. Residents develop an individualized initial training plan, which describes activities to be undertaken during the residency and conduct at least one research project under the guidance of NIDCR staff and other qualified mentors. The training program in research will be tailored to meet the particular interests and previous experience of each individual selected. For more information, see

<http://www.nidcr.nih.gov/Funding/Training/ResidencyInDentalPublicHealth.htm>.

### ***Global Infectious Disease Research Training Program Award***

NIDCR supports the Fogarty International Center (FIC) Global Infectious Disease Research Training Program Award, which is described in the FIC section below.

## **National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK)**

### ***NIDDK Career Transition Award (K22)***

The NIDDK Career Transition Award, which uses the K22 mechanism, is a five-year mentored career development award whose goal is to attract outstanding physician-scientists to a clinical research training program that will endow them with the fundamental skills and investigational tools necessary for successful careers in patient-oriented research, and to facilitate their successful transition to an extramural environment as independent researchers. The Award involves two distinct phases: (I) up to three years of research within the Intramural Research Program at NIDDK facilities in Bethesda, MD or Phoenix, AZ and (II) two years of faculty support at an extramural institution within the U.S. It is anticipated that awardees will subsequently obtain research project grants, such as the R01, to support the continuation of their research. For more information, see <http://grants2.nih.gov/grants/guide/pa-files/PAR-06-002.html>.

### ***NIDDK Medical Student Research Training (MSRT) Program***

This program provides administrative supplements to NIDDK training grants to allow medical students to take a year off from their medical school studies to pursue a year of research in conjunction with an NIDDK-supported Center. At about 70 percent of the institutions at which the NIDDK supports one or several Centers, there also exists an institutional training grant (T32) in the same field of research. The combination of a well-funded cadre of research investigators, the core facilities offered by the Center, and the structure of a training program make these locations rich environments for recruiting and developing young physician scientists. The NIDDK conducted a three-year pilot program at a selected group of institutions to determine the interest in, and utility of, allowing medical students to spend a year working in the laboratory of an investigator associated with both a DK-supported Center and a DK-supported T32 program. Due to sufficient interest, the NIDDK will now allow any institution at which at least one DK-



Center and an appropriate NIDDK Institutional NRSA grant (T32) exist to submit applications for highly motivated medical students to take a year off from their studies to pursue a research training experience supported by the MSRT program. For more information, see <http://grants.nih.gov/grants/guide/notice-files/NOT-DK-05-004.html>.

### ***Network of Minority Research Investigators (NMRI)***

The Office of Minority Health Research Coordination of the NIDDK has established a communication network of current and potential biomedical research investigators and technical personnel from traditionally under-served communities: African American, Hispanic American, American Indian, Alaskan Native, Native Hawaiian, and other Pacific Islanders. The major objective of the network is to encourage and facilitate participation of members of underrepresented racial and ethnic minority groups in the conduct of biomedical research in the fields of diabetes, endocrinology, metabolism, digestive diseases, nutrition, kidney, urologic and hematologic diseases. A second objective is to encourage and enhance the potential of the underrepresented minority investigators in choosing a biomedical research career in these fields. An important component of this network is promotion of two-way communications between network members and the NIDDK. NRSA trainees now also come to a once yearly meeting. Regional meetings are being planned. For more information, see <http://nmri.niddk.nih.gov/>.

### ***Minority Supplement Program to Institutional National Research Service Award (T32)***

The NIDDK currently provides the opportunity for well-qualified individuals from underrepresented minority groups to receive research training under an existing NIDDK-funded T32, even when all the positions awarded for the T32 have been filled. Under this program, the NIDDK awards an extra position, designated specifically for a selected under-represented minority trainee—either pre-doctoral or post-doctoral—to an existing T32 award. That position then remains a part of the award for as long as the named individual is a member of the training program. In addition, NIDDK-funded T32s may also request short-term training slots to support research experiences for minority medical students during the summer between their first and second years of medical school. For minority medical students who wish to pursue a longer period of research training, the NIDDK now provides the opportunity for these students to be supported for a full 9-12 month period, while on leave from medical school, via a supplement to any existing NIDDK T32. For more information, see <http://www.niddk.nih.gov/fund/training/minorityslotinstruc.htm>.

### ***Short-Term Education Program for Underrepresented Persons (STEP UP)***

This program provides short term scientific research education for underrepresented minority students in high school or college, exposing them to research in diabetes, digestive, kidney, and other NIDDK disease mission areas in the extramural community. For more information, see [http://www2.niddk.nih.gov/Funding/FundingOpportunities/Minority\\_Health\\_Research\\_Coordination/step-up.htm](http://www2.niddk.nih.gov/Funding/FundingOpportunities/Minority_Health_Research_Coordination/step-up.htm).

### ***NIDDK Education Program Grants (R25)***

This funding opportunity announcement (FOA) solicits Research Education (R25) grant applications from applicant organizations that propose to create educational opportunities to

attract undergraduate students, graduate students, and postdoctoral fellows to careers in areas of biomedical or behavioral research of particular interest to the NIDDK while fostering the career development of these students and fellows. The NIDDK is especially interested in attracting students and postdoctoral fellows from scientific disciplines underrepresented in disease-oriented biomedical research such as engineering, informatics, computer science, and computational sciences, to encourage them to apply their expertise to research relevant to diabetes and other endocrine and metabolic diseases, digestive and liver diseases, nutrition, obesity research and prevention, and kidney, urologic and hematologic diseases. For more information, see <http://grants.nih.gov/grants/guide/pa-files/PA-06-554.html>.

### ***NIDDK Undergraduate Summer Research Training Program***

Through the Office of Minority Health Research Coordination, the NIDDK invites undergraduate students to apply for the Summer Research Training Program. Successful applicants join one of NIDDK's research laboratories in Bethesda, Maryland or Phoenix, Arizona for ten weeks between late May and August. In addition to the mentored research experience, at the end of the summer, students participate in the Summer Research Program Poster Day. This provides an opportunity for students to present their work before the NIH scientific community. For more information, see [http://www2.niddk.nih.gov/Funding/FundingOpportunities/Minority\\_Health\\_Research\\_Coordination/undergrad-rsch-train-prg.htm](http://www2.niddk.nih.gov/Funding/FundingOpportunities/Minority_Health_Research_Coordination/undergrad-rsch-train-prg.htm).

### ***Gateways to the Laboratory/NIDDK Honors Research Program***

In order to further increase the pool of qualified under-represented minority college students who would be applying to combined MD-PhD Programs, the Weill Cornell/Rockefeller/Sloan-Kettering Gateways to the Laboratory Program (Gateways) and the NIDDK have joined forces to create the Gateways to the Laboratory/NIDDK Honors Research Program. This prestigious summer program selects five Gateways alumni annually who will spend the following summer conducting research in one of the NIH laboratories in Bethesda, MD. This special summer program is for Gateways to the Laboratory Program alumni who are seriously considering pursuing the combined MD-PhD degree. For more information, see [http://www2.niddk.nih.gov/Funding/FundingOpportunities/Minority\\_Health\\_Research\\_Coordination/honors-research.htm](http://www2.niddk.nih.gov/Funding/FundingOpportunities/Minority_Health_Research_Coordination/honors-research.htm).

### ***Training Programs in Diabetes Research for Pediatric Endocrinologists***

Under this program, funded by the Special Statutory Funding Program for Type 1 Diabetes Research, the NIDDK awarded complementary Institutional research training (T32) and clinical scientist career development program (K12) grants to eligible institutions to provide an integrated program to prepare pediatricians, selected by the institution, for careers in pediatric endocrinology research related to diabetes. The T32s funded by this RFA will compete for NIDDK NRSA funds for their competing renewals. This initiative was responsive to the language in The Children's Health Act of 2000 recommending support of the expansion of programs to train new investigators in pediatrics. For more information, see <http://grants.nih.gov/grants/guide/rfa-files/RFA-DK-02-024.html>.



## **National Institute of Environmental Health Sciences (NIEHS)**

### ***Outstanding New Environmental Scientist Award (ONES) - R01 award***

The R01 Outstanding New Environmental Scientist Award is intended to identify outstanding scientists who are in the early, formative stages of their careers and who intend to make a long term career commitment to preventive research focusing on problems of environmental exposures and human biology, human pathophysiology and human disease. This program seeks to bring innovative, ground-breaking research initiatives and thinking to bear on prevention, early diagnosis and treatment of disease. For more information, see <http://grants.nih.gov/grants/guide/rfa-files/RFA-ES-06-007.html>.

### ***NIEHS K18 Program: Translational Research***

The NIEHS K18 program consists of short-term, mentored career development awards with a range of 3 months to 1 year, aimed at established investigators to support their development of research capability in the environmental health sciences or in translational research. The program is directed to two groups of investigators. One group is composed of investigators in the basic sciences with active NIEHS research funding who wish to gain experience in a disease oriented program to extend their basic knowledge to a more translational problem. The other group consists of scientists with clinical training who have research funding from other Institutes and essentially no experience in research applicable to the environmental health sciences who wish to spend time in the laboratory or research program of a well funded NIEHS supported investigator. Both groups will gain important knowledge and experience of research involving environmental stressors and will be able to incorporate this learning into their research.

### ***Short Term Educational Experiences for Research (STEER) in the Environmental Health Sciences for Undergraduates and High School Students***

The NIEHS Short Term Educational Experiences for Research (STEER) in the Environmental Health Sciences for Undergraduates and High School Students (R25) is a program that seeks research institutes that will create and provide innovative research and educational opportunities in the environmental health sciences for talented high school students and college undergraduates. The STEER program provides student research experiences with participating faculty and will impart an appreciation of environmental impacts on human health. The focus of both the laboratory experience and the educational experiences/seminars are related to environmental exposure, as they relate to human disease. For more information, see <http://grants.nih.gov/grants/guide/rfa-files/RFA-ES-06-009.html>.

### ***NIEHS K12: Clinical Training Program***

The purpose of this program is to support the early career development of patient-oriented researchers in the environmental health sciences. Programs will involve multidisciplinary Career Development Programs centered on a specific aspect of disease etiology, pathogenesis, progression, and/or epidemiology which will prepare physicians and other scientists to pursue a research career in patient oriented research which has a focus on an environmental exposure relevant to the mission of the NIEHS. Programs will include both a didactic and research career development experience to be guided by a mentoring team.

### ***Human Genes and the Environment Research Training Program (T32)***

This new Human Genes and the Environment Research Training Program seeks to build upon the established foundations in exposure biology and high throughput genomics and expands the base to include additional scientific disciplines, such as human genetics, epidemiology, environmental genomics/genetics, mechanistic environmental health sciences, various clinical and biomedical elements, and other relevant areas, to define a new interdisciplinary science which can address the relative roles of genes and environmental exposures in complex diseases. The goal is to produce a new generation of scientists who are equally at home in genomics and environmental health sciences and can seamlessly interact with both groups of scientists. Similarly, the broad objective of these awards is to help ensure that diverse pools of highly trained scientists will be available in adequate numbers and in appropriate research areas to carry out the Nation's biomedical, behavioral and clinical research agendas related to environmental health. For more information, see <http://grants.nih.gov/grants/guide/rfa-files/RFA-ES-07-002.html>.

### ***Administrative Supplements to Support High School Student and College Undergraduate Research Experiences***

As noted in the NIEHS 2006 Strategic Plan, the NIEHS will enhance opportunities for young, motivated high-school and undergraduate students to participate actively in environmental health research. To that end, the NIEHS has announced an administrative supplement program available to Principal Investigators with R01, R37, or P01 awards to support summer research experiences for talented and gifted high school students and college undergraduates. By offering such an introduction to environmental health science research to high school students and science undergraduates, the NIEHS can both increase the number and elevate the credentials of the pool of applicants to graduate programs in the environmental health sciences.

## **National Institute of General Medical Sciences (NIGMS)**

### ***Committee on the Advancement of Women Chemists (COACH)***

NIGMS supports COACH, which was formed in 1998 as an organization of individuals concerned about the slow progress that is being made in reaching gender equity in academia in the chemical sciences. For more information, see <http://coach.uoregon.edu/>.

### ***Pharmacology Research Associate Program (PRAT)***

Established by NIGMS in 1965, the PRAT Program provides training, career advice and networking opportunities to postdoctoral researchers who conduct their research in one of the laboratories of the NIH or the Food and Drug Administration (FDA). This highly competitive postdoctoral fellowship program is intended for individuals with backgrounds in the basic or clinical sciences who wish to obtain advanced experience in an area of pharmacology, or for those with a pharmacology background to gain experience in new fields. The program has been very successful in achieving its overarching goal to train leaders in the field of pharmacology. In its first decade (1965-1975) the program accepted 92 male and 2 female trainees. Since 1975 the number of women entering the program has grown steadily. Approximately half of the programs trainees since 1985 are female. Presently 10 of a total of 17 trainees in the program are women. Since 1980, PRAT fellows have gone on to positions in academia, industry and

government in approximately equal measure and both males and females appear to be progressing comparably through the ranks. For more information, see <http://www.nigms.nih.gov/Training/PRAT.htm>.

### ***Building Strong Academic Chemistry Departments through Gender Equity***

With the National Science Foundation and Department of Energy, NIGMS cosponsored the workshop, Building Strong Academic Chemistry Departments through Gender Equity, held in January 2006 to develop and implement strategies to significantly increase the number of women chemists in tenured academic positions in our research universities and eliminate the gender biases that negatively impact their career progress. For more information on this workshop, see <http://www.chem.harvard.edu/groups/friend/GenderEquityWorkshop/>.

### ***Minority Access to Research Careers (MARC) Undergraduate Student Training in Academic Research (U-STAR) Institutional National Research Service Award***

The overall goal of the NRSA MARC U-STAR program is to increase the number of scientists from underrepresented groups engaged in biomedical/behavioral research. The program will do this by providing support for the research training of undergraduate science/math students from minority-serving institutions to prepare them to pursue Ph.D. degrees and future careers in biomedical and behavioral research. For more information, see <http://www.nigms.nih.gov/minority/marc.html>.

## **National Institute of Mental Health (NIMH)**

### ***Developing Executive Research Leadership Skills for Women and Minorities***

This program is a Phase I SBIR contract that focuses on developing tools and strategies for teaching a broad array of executive leadership skills (negotiation, business/financing, personnel and large project management) within research settings/disciplines. The multimedia tools being developed are aimed at facilitating the research career enhancement of junior, mid-level and senior level women and ethnic minority investigators. This SBIR grew out of the fact that fewer women and minorities are the primary PI on large, complex grants (linked ROIs, center grants, etc.).

### ***Minority Research Infrastructure Support Program (MRISP)***

This R24 grant program is an institutional award that is designed to increase mental health research capacity at Minority Serving Institutions, by supporting developing investigators, investigators embarking on a new area of mental health research, and the research infrastructure. Each grant supports an infrastructure development plan, as well as research subprojects. For more information, see <http://www.nimh.nih.gov/grants/r24.cfm>.

### ***Career Opportunities in Research (COR) Honors Undergraduate Research Education and Training Program Grant***

This T34 institutional grant program is designed to advance well-prepared undergraduate trainees to a research-intensive graduate school. At NIMH, it provides support for honors juniors and seniors interested in pursuing careers in the mental health related sciences. The host institutions, mostly historically Black and Hispanic-serving colleges and universities, select the

scholars, who also participate in an annual COR Education and Training Colloquium, hosted by NIMH.

## **National Institute of Neurological Disorders and Stroke (NINDS)**

### ***Analyst Mentoring Program for Extramural Research Excellence (AMPERE)***

AMPERE (Analyst Mentoring Program for Extramural Research Excellence) is a newly developed NINDS program that aims to facilitate professional growth of program analysts by encouraging their mentoring. Mentored program analysts will have the opportunity to learn from experienced NINDS staff about career possibilities, balancing competing responsibilities, and networking. AMPERE is also designed to help analysts clarify their interests and define possible independent projects while improving the knowledge base and the interaction between analysts and senior staff throughout NINDS. In addition to the individual mentoring, AMPERE includes quarterly lunches, seminars, retreats, and other career development activities.

### ***F05 International Neurosciences Fellowship (INF)***

The goal of this International Neuroscience Fellowship Program is to provide a unique opportunity to qualified foreign neuroscientists, at junior or mid-career level, to receive one to two years of research training in the United States. The objective of the INF is to prepare awardees for future leadership positions in research, academia or public health institutions in their home country. It is hoped that this funding opportunity will enhance the quality and quantity of international neuroscience research, while fostering long lasting collaborations between foreign and U.S. neuroscientists. Upon completion of the fellowship, recipients they will have the opportunity to use their newly acquired skills to pursue neuroscience research and to teach or direct others in neuroscience research in their home country. The NINDS cofunds this program with NIA, NIDA, and NIEHS. For more information, see <http://grants.nih.gov/grants/guide/pa-files/PA-06-227.html>.

### ***Collaborative Neurological Sciences (CNS) Award***

The purpose of the Collaborative Neurological Sciences (CNS) Award, supported by the NINDS and the NIAAA, is to encourage collaborative research investigations among scientists at minority institutions and grantees from leading research laboratories that have NIH or equivalent grant support to conduct neuroscience research. Funding from the CNS Award should lead to joint research efforts and publications, shared research instrumentation and resources, exchange of research techniques, and other scientific activities to enhance the research capabilities of applicants at minority institutions to successfully compete for independent research funding during the performance period of award. The nature and scope of these scientific interactions should promote better opportunities to educate and prepare students and fellows for productive research careers in neuroscience. For more information, see <http://grants.nih.gov/grants/guide/pa-files/PA-07-357.html>.

## **National Institute of Nursing Research (NINR)**

### ***NINR Career Transition Award (K22)***

The goal of the NINR Career Transition Award program is to provide highly qualified developing, doctorally prepared nurses with an opportunity to receive postdoctoral research training in an NIH intramural research laboratory or clinical research department. Transition funding will be provided upon completion of the fellowship for the continuation of their program of research in an extramural institution. The NINR Career Transition Award consists of an Intramural Support Phase and an Extramural Support Phase. The total period of combined intramural and extramural support will be up to five years. Initially, up to three years of the research training program will be provided in the Intramural Support Phase in which the salary of the awardee will be commensurate with his/her level of experience. The final two years of the program, the Extramural Support Phase, will provide salary and funds for supplies, equipment and technical support through the NIH Career Transition Award. For more information, see <http://grants.nih.gov/grants/guide/pa-files/PA-04-143.html>.

### ***Nursing Regional Research Society Meetings Mentoring Sessions***

NINR has annually provided mentoring sessions at the four Nursing Regional Research Society Meetings (Southern Nursing Research Society; Midwest Nursing Research Society; Western Institute of Nursing; Eastern Nursing Research Society). As part of the NINR 20<sup>th</sup> Anniversary celebration in 2006, the NINR presented a special panel session at each of the 2006 regional nursing research meetings focusing on research mentorship. Each of these panel presentations featured three pairs of mentors and mentees and explored lessons learned in effective mentoring. A NINR Program Director moderated each of the sessions.

## **National Library of Medicine (NLM)**

### ***Changing the Face of Medicine***

The National Library of Medicine has created the Changing the Face of Medicine exhibition honoring the lives and accomplishments of these women in the hope of inspiring a new generation of medical pioneers. The website, video, and exhibit showcase the many ways that women have influenced and enhanced the practice of medicine by providing an intriguing glimpse of the broader community of women doctors who are making a difference. For more information, see <http://www.nlm.nih.gov/changingthefaceofmedicine/>.

## **Fogarty International Center (FIC)**

### ***AIDS International Training and Research Program (AITRP)***

The purpose of this program is to support collaborative training programs that would contribute to the long-term goal of building sustainable research capacity in HIV/AIDS and HIV-related conditions at institutions in low- and middle-income countries. Grants are awarded to U.S. institutions with strong HIV-related research training experience and with HIV-related research collaborations with institutions in low- and middle-income countries. The grantees, in partnership with their foreign collaborating institutions, identify foreign health scientists, clinicians, and allied health workers from the foreign countries to participate in their joint

research training programs. The primary goal of this program is to build multi-disciplinary biomedical, behavioral and social science research capacity for the prevention, care and treatment of HIV/AIDS and HIV-related conditions for those adults and children affected by HIV/AIDS in the collaborating country. AITRP makes provisions for training in the United States, in other countries, and in the home countries. AITRP is sponsored by FIC, NCI, NIAID, NIDCR, NIMH, NINR, NIDA, OAR, and ORWH. For more information, see [http://www.fic.nih.gov/programs/training\\_grants/aitrp/index.htm](http://www.fic.nih.gov/programs/training_grants/aitrp/index.htm).

### ***Global Infectious Disease Research Training Program Award***

The purpose of this training program for U.S. and developing country institutions is to provide non-HIV/AIDS infectious disease research training to scientists and health professionals in order to build sustainable research capacity at institutions in low- and middle-income endemic countries. The training programs include a variety of research training options to match the needs of the developing country institution. The ultimate goal is to build a critical mass of researchers and support staff to conduct independent infectious disease research in developing country institutions. Training programs may include:

- Pre-doctoral training in infectious disease-related and biomedical research disciplines, and data management and analysis in support of that research, which may lead to an M.S. or Ph.D. or equivalent degree
- Post-doctoral research projects, generally of two years duration for foreign health scientists
- Short- and medium- term training in short courses, workshops, or practical experience of up to several months in specific research methods or other laboratory, clinical, social science, or field skills related to infectious disease research.

This FIC program is cosponsored by NIAID and NIDCR. For more information, see <http://grants.nih.gov/grants/guide/pa-files/PA-05-128.html>.

### ***Women's Global Health Scholars***

Recognizing that women have too long faced barriers that inhibit them from rising to the top ranks of academia, especially in scientific disciplines, the *Women's Global Health Scholars (WGHS) Program* is a one-year program designed to equip women from around the world with the tools, skills and networks needed to advance their careers and assume leadership positions. For more information, see <http://www.wghi.org/research/scholars.htm>.

### ***Virtual Program for Career Development and Capacity Building for Latin American and Caribbean Junior Women Scientists***

As a partnership between FIC, the NIH and UNESCO Regional Chair, Women, Science and Technology in Latin America, the main purpose of this program is to create a virtual and highly interactive space that offers mentoring, networking and training activities aimed at improving the skills and capacities for professional development and leadership of junior Latin American women scientists in their disciplines and institutions. The program design takes advantage of the academic and technical expertise of FIC and the UNESCO Chair in using novel information and communication technologies for educational and networking activities. The program explores the potential of "Eluminate", a web video conferencing and electronic-learning software, currently being used by Fogarty grantees and the technological and pedagogical expertise of the UNESCO Chair in producing and conducting electronic-learning programs on gender and science issues.



## **National Center for Complementary and Alternative Medicine (NCCAM)**

### ***Complementary and Alternative Medicine Career Transition Award (K22)***

The goal of this funding opportunity is to provide support for outstanding advanced postdoctoral research scientists during their transition to independence. The award will provide support for up to 1 year of postdoctoral research training, and 3 years of research support as an independent investigator. This award is limited to postdoctoral trainees who propose research in complementary and alternative medicine (CAM) for the independent investigator phase of this award. In the first phase, the mentored postdoctoral fellow can be associated with the intramural or the extramural community. Postdoctoral scientists in the NIH intramural program will be fully supported by the NIH Institute/Center intramural laboratory in which they are doing their research. Extramural postdoctoral scientists supported by any one of the mechanisms listed under eligibility requirements will be supported by NCCAM and/or ODS extramural funds. In the independent scientist phase, scientists will have the protected time to develop their research career. For more information, see <http://grants.nih.gov/grants/guide/pa-files/PA-05-129.html>.

## **National Center on Minority Health and Health Disparities (NCMHD)**

### ***Minority Health and Health Disparities International Research Training (MHIRT) Program***

The NCMHD Minority Health and Health Disparities International Research Training (MHIRT) Program offers international research training opportunities to qualified undergraduate, graduate and health professions students who are from health disparities populations and/or are underrepresented in basic science, biomedical, clinical or behavioral health research career fields. Trainees are matched with a mentor conducting research at an international host site (e.g. government laboratories, university laboratories). These international research opportunities are designed to encourage students to pursue careers in health disparities research, broaden the research efforts and scientific training of these students to encompass international health disparities issues, and seek innovative approaches to address problems associated with eliminating health disparities gaps.

### ***Loan Repayment Program for Health Disparities Research***

The NCMHD Loan Repayment Program for Health Disparities Research supports the recruitment and retention of highly qualified health professionals with doctoral degrees to conduct basic biomedical, clinical, behavioral, community-based, and health services research relevant to health disparities in the extramural community. For more information, see <http://www.lrp.nih.gov/about/lrp-healthdisp.htm>.

### ***Extramural Clinical Research Loan Repayment Program for Individuals from Disadvantaged Backgrounds***

The NCMHD Extramural Clinical Research Loan Repayment Program for Individuals from Disadvantaged Backgrounds supports the recruitment and retention of qualified health professionals from disadvantaged backgrounds to conduct clinical research. For more information, see [http://ncmhd.nih.gov/our\\_programs/loan/index.asp](http://ncmhd.nih.gov/our_programs/loan/index.asp).

## **National Center for Research Resources (NCRR)**

### ***Clinical Research Education and Career Development (CRECD)***

The Division of Research Infrastructure in NCRR administers the Clinical Research Education and Career Development (CRECD) awards to develop and implement curriculum-dependent programs in minority institutions to train selected doctoral and postdoctoral candidates in clinical research. The programs lead to a Master of Science degree in Clinical Research or Master of Public Health degree in a clinically relevant area. The goal of the program is to promote the development of well-trained and independent clinical researchers who can lead clinical research studies addressing health disparities among the American people. Approximately 70% of the trainees are women. The CRECD program provides multi-disciplinary, didactic training for clinical research as well as mentored clinical research projects for trainees to enhance clinical research skills. The CRECD program is a trans-NIH program that uses the R25 mechanism and is funded by the NCRR, the NCMHD, the NEI, the NHLBI, the NIA, the NIAMS, the NIDA, and the NIDDK. For more information, see <http://grants.nih.gov/grants/guide/rfa-files/RFA-RR-06-003.html>.

### ***Clinical and Translational Science Award (K12)***

Within the K12 CTSA, the KL2 funding mechanism supports institutions that provide clinical research experiences and training for MDs and a range of healthcare related specialties, and the TL1 funding mechanism supports institutions that give a short or long research experience to medical students.

### ***Science Education Partnership Awards (SEPA)***

The Division of Clinical Research and Research Resources (DCRR) support the Science Education Partnership Award (SEPA) Program to fund grants for innovative educational programs. Such projects create partnerships among biomedical and clinical researchers and K-12 teachers and schools, museums and science centers, media experts, and other educational organizations. The SEPA Program uses the R25 award mechanism and supports classroom interventions and museum experiences that enhance awareness of NIH research. For more information, see <http://www.ncrrsepa.org/>.

### ***General Clinical Research Centers***

M01 awards given as General Clinical Research Center Awards can include funds to support medical students for short or long ‘research experiences’.

### ***Roadmap K12 MCRCP***

The Division of Clinical Research and Research Resources supports a Roadmap K12 MCRCP at the University of Wisconsin Madison that has initiated the TEAM Program [Training and Education to Advance Multidisciplinary-Clinical-Research]. The TEAM Program Clinical



Research Scholars conduct translational research in disciplines ranging from nursing to bioengineering. The program has been successful in increasing the participation and advancement of women and underrepresented minority researchers in clinical research.